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EDITORIAL—SOME HIGHLIGHTS

I. General Economic Scene

State:

Prices: The five factors which led to a decline in some prices and arrest in price rises in other essential goods outlined in the last issue (Vol. IV page 664) were reinforced by the effects of the anti-smuggling and anti-hoarding drive in the State under MISA ordinance undertaken by the Revenue, Civil Supplies and Food Cell police. In Madras the retail price of rice was around Rs. 3.50 to Rs. 3.80 per kg, in Thanjavur Rs. 1.60 to Rs. 1.70 per kg., with other essential commodities selling at prices recorded in the last issue. The expansion of the distribution net work is underway, with the Madras Corporation locating the 30 additional co-operatives and the 250 additional Civil Supplies Shops so that the coverage of each shop would be serving 1,500 to 2,000 persons. The Government also in early November issued a notification under DIR declaring rice mills as an essential undertaking which would enable the Government to take over their management and use their idle capacity to increase food grain availability. Should the supply position not improve the Government has under consideration introducing a system of rationing. Consumer resistance is also developing over a wide range of essential and non-essential commodities, the latter including cloth, silks, cosmetics, bicycles, etc. As a result prices of wheat products have fallen by 10 per cent and to further accentuate this trend the Civil Supplies Department is supplying wheat to the Hotel Association at controlled prices and has offered to supply other essential commodities at similiar prices to its members. These short term measures to control and lower prices should be supplemented by an enquiry into the prices of wage goods and their distribution in the State to guide the Government and the trading community in long term action. In food prices the peculiar situation since July in this State compared to other neighbouring and Northern States needs particular investigation. This is needed as the price situation might worsen in view of the drought-stricken areas which the Government is now identifying through a Revenue Board member. The Government set up at the end of November a committee of Secretaries headed by the Chief Secretary to keep food grain production, distribution, prices and the need for rationing under review. What is needed further is a wider comprehensive investigation into the whole price and distribution system.

Power: Power supply in the State which was normal and unrestricted in October and November was cut back as from December 1. The Government announced that as of that date (a) domestic consumption's limit of 250 units, above which a penal rate of one and a half times the normal tariff will be imposed, (b) a 15 percent cut in essential services like railways, hospitals, water supply, news papers etc. with one and a half times the normal tariff for any excess and, (c) a 40 per cent cut on industrial and commercial consumers, any excess involving both one

and a half times the normal rate as well as disconnection of services. In view of the need to ensure increased agricultural and food production, agriculture is not only exempt, in addition to energising 30,000 pump sets this year, supply will be extended to a further 30,000 pump sets. The basic cause for this drastic power cut is the continuing short fall of power supply and generation in relation to demand that the State faces throughout the Fifth Plan. It is estimated that against the energy demand of 5,909 million units, availability will be 5,059 million units leaving a deficit of 850 million units. Allowing a margin for unforeseen short falls, this deficit of 1,000 million units works out to 5 million units a day. The cut in domestic consumption and the limit of 15 per cent on essential services will economise 1 million units per day. The remaining 4 million units reduction will have to be from industries which consume 10 million units per day. This heavy power cut for this year is caused by (a) the long term factors analysed in Vol. III pages 6-8, 88-89, 159-160, (b) the two oil fired units of 50 MW each in Neyveli going out of commission until March/April, (c) the agreement with Kerala requiring adherence to the 49.5 kilocycles frequency which calls for balancing demand with supply to avoid tripping and load shedding, (d) the water level at Mettur being low and with the introduction of the turn system of irrigation, the tunnel power has been closed down leading to a reduction of power from 150 MW to 7 MW, in Papanasam the storage is almost nil and the lower storage in the hydel reservoirs generally being due to the relative failure of the North East Monsoon, (e) a further consequence of the poor monsoon being an increase in the agricultural demand for power because of the dependence on well irrigation, and (f) the technical problems in the Ennore station caused by low quality of coal and fuel oil supplied, including the oversized coal arrivals. The power cut will bear very heavily on industries, particularly the major power consumers, sugar, cement, textiles, paper and heavy chemicals. Some of the immediate action that can be taken by industries and the Electricity Board to prevent a major industrial slowdown include: (a) industries ensuring maximum production under these conditions, (b) diverting to neighbouring and essential industries, surplus power during agriculture's slack and lean periods every day and in the harvesting seasons, (c) paper and other industries using to the maximum steam generation for their power, (d) sugar mills making available their power from bagasse to other industries in the non crushing season, (e) the establishment of an exchange bank by the Electricity Board and the State Planning Commission to identify on a monthly basis the areas of surplus and deficit power among industrial consumers, both public and private sector, and so evening out industrial power consumption even to some extent and (f) to use to the full the standby generators assembled by major industrial units.

In this parlous power situation in the State, which is parallelled in the Karnataka State, where due to the failure of rains, the gap in the Linganamakki and Sharavathi reservoirs have led to a 35 per cent cut on both LT and HT consumers, and in the case of Andhra Pradesh a continuing 20 per cent power cut, the recommendation of the southern Regional Electricity Board meeting in early November in Trivandrum to start work immediately on the third stage of the Idikki hydel project in Kerala should be acted upon by the Union Planning Commission and the Power Ministry. The third stage calls for only Rs. 4 crores of civil engineering works, requires no further equipment and will yield 420 million units of power. The

Board also agreed to share Kerala's spill energy in August-September, continue the loop operation of Andhra Pradesh, Karnataka and Tamil Nadu power systems with the Kerala system in order to improve the systems security, stability and frequency and reduce transmission losses and to commission the power line carrier communication system linking Erode and Kalamassery and Bangalore and Chittoor on a priority basis.

For the Country, the power situation in October continued to show a mixed picture. Kerala, Orissa and Gujarat had normal power supply and there was some improvement in the situation in West Bengal and Bihar. The one megawatt geo-thermal station was inaugurated in the Chumanthang area of Ladakh, using the geothermal steam from the wells dug by the Geological Survey in 1973 with prospects of expanding it to a 30 MW plant. On the other hand the North continued to be gripped by a severe power crisis despite some increase (from 9 to 9.5 million units a day) of Bhakra power generation to meet agricultural (rabi) needs. The 75 per cent power cut on industries in Punjab has meant an equal reduction in their production and a daily loss of Rs. 2 crores, with the State Electricity Board losing Rs. 13 crores upto October. Power supply to all Haryana industries except sugar and flour mills was completely cut off for the last 10 days in November to divert power for rabi sowings. The power operated Sonepat industrial complex continued its precarious non-existence, affecting 40,000 workers. In Uttar Pradesh the power cut forced the shut down of 130 rolling mills, 158 steel foundries and other rolling, forging and iron and steel units, throwing out of work 1.5 lakh workers. Maharashtra's 25 per cent cut continued. One immediate action needed in all these states is improved capacity performance of thermal stations.

Water, Cauvery Agreement: With the reduced water shortage in the State, a problem arose in November between this State and Karnataka on the impounding of 13 tmc ft. of Cauvery waters in the Kabini project in Karnataka. There is the legal aspect of the problem. Karnataka claims that against the Kabini reservoir capacity of 19 tmc which it was authorised to construct in 1956, it has only stored 13 tmc feet that it was entitled to under the 1924 agreement to construct an offset storage reservoir equal to 60 per cent of the new reservoirs constructed by this State on the Bhavani, Amravathi or the Noyal which amount to 32 tmc, giving it the entitlement to 19.2 tmc ft., and that the standstill agreement between the two States was for 6 months which period has expired. Tamil Nadu's case is that the 1972 agreement (See Vol. III No. 7 page 4) established a standstill situation until the Cauvery issue was settled between Tamil Nadu, Kerala and Karnataka. But the problem is also practical and immediate. The Mettur discharge has been reduced from 18,000 cusecs to 12,000 cusecs a day in November to serve the 7 lakh acres under samba in the delta and even this small supply will end in mid December. The Kabini waters are not being used as the distribution channels have not been completed. Hence the Government has appealed to Karnataka Government to release the water to save the samba crop, which is also in its interest, and which Karnataka has agreed to as part of the wider Cauvery waters settlement. The Chief Ministers of Tamil Nadu, Karnataka and Kerala met in New Delhi with the Union Minister of irrigation on November 28 and 29 and agreed to set up a Cauvery water Authority consisting of the chief engineers of the 3 States, presided over by a Union Ministry Official with authority to work out economic utilisation and apportionment of Cauvery waters. This will

involve working out the quantity of water over the figure now agreed upon, taking account of the periodic changes in the river waters and apportioning the excess water. The details of this agreement are being worked out, including the Statutory status of the Authority. It is expected that the Chief Ministers and the Union Minister will meet in December to sign the agreement ending this longstanding dispute and possibly setting a precedent for other States. Another water programme—the Siruvani drinking water programme—was completed in November, providing Coimbatore an additional 2.75 lakh gallons per day of drinking water. This Rs. 1.73 crores project is part of the Rs. 11.9 crores comprehensive Siruvani scheme including the construction of the Siruvani dam on the Kerala sector (See Vol. III pages 232 and 620-621).

Transport and Telephone : The State is planning a new organisation to develop long distance State transport buses to meet the growing demand for such services. The Southern railways are facing the problems of 2 days coal stocks against the required 14 days stock and also a shortage of steam coal from the Bengal-Bihar coal fields. The Railway Board announced improvement in II class passenger facility by setting up passenger booths. checking of compartments and the introduction of a 48 seater Janata air conditioned coach in replacement of the present seeond class 2 tier bogie. It also made known that two techno-economic feasibility studies of the Madras rapid transit system, one connecting Tondiarpet to Kasturba Nagar along the Buckingham canal and another along the North-South roadways are being completed by the end of the year. The congestion in the Madras harbour referred to in Vol. IV page 411 has led to the India-Pakistan-Bangla Desh conference lines to propose a freight surcharge on cargoes loaded from Madras port. The delay for general cargo ships it points out is 4-5 days and sometimes 6-8 days. But in fairness to the port authorities it should be pointed out that the port authorities have more than doubled their loading in export ships from 2,000 – 3,000 tonnes per voyage to 5,000–6,000; that this involves a longer turn around which is not wasteful, that the bunching of ships' arrival was due to their competition to load available exports, that export cargoes arrived usually after the berthing of vessels, that the rate of discharge of import cargo was 400–500 tonnes a day because of their bulkiness and improper storage - so that the proposed surcharge is not justified and will send up the cost of exports. In fact Madras port handled 5.7 lakh tonnes of food and fertilizer unloading upto December another 2.8 lakh tonnes. Now berthing delays will have to be avoided and for this increasing use of daughter ships in unloading bulk carriers and of Tuticorin and Nagapattinam harbours, with the dock labour and management speeding the turn around of the ships. The Fifth Plan target of expanding Madras Telephone lines by 20,000 has involved in addition to the 1,000 lines of the Adyar exchange expanding to 3,000 by next year, a 2,500 line cross bar exchange at Kellys in December and a similiar 3,000 line cross bar exchange in Mount Road. With the new automatic exchanges planned at Nagercoil, Tirunelveli, Thanjavur, Kumbakonam, Pondicherry, Pollachi, Dindigul and Karur, the 233 medium and large and 121 small exchanges in the rest of the State the total lines will be 40,000 over the current 80,000 lines and will meet the growing industrial and commercial communications demands.

Housing : A housing colony for Ashok Leyland employees was inaugurated in November at Vyasarpadi involving the building of 300 houses in an area of 6.06

acres at a cost of Rs. 17,000 each. The monthly repayment of Rs. 125 over 20 years covers the principal and a 7½ per cent interest. The Government has offered free house sites for workers outside the city limits, particularly on the Nellore Road as a means of avoiding overcrowding in the city. LIC has made available Rs. 126 lakhs to the Housing Board for MIG, LIG, State employees and village housing projects. The Union Government on its side has lifted its ban on house building loans to its employees who can borrow upto Rs. 25,000 for construction purposes.

Welfare: The State Government introduced on November 14, a far reaching Social Security Scheme, the first of its kind in the country, for any one, workers, self employees, wage earners, men, women and minor children who will draw a lump sum and a monthly pension in return for a small monthly payment. There are seven types of subscription plans available —Rs. 10 per month for 10 years resulting in a monthly pension of Rs. 20 for 30 years and a lump sum of Rs. 1,500 at the end, Rs. 10 for 15 years with a pension of Rs. 35 and a lump sum of Rs 2,500, Rs. 10 for 20 years with Rs. 60 pension and a lump sum of Rs. 4,000, Rs. 10 for 25 years with Rs. 100 pension and a lump sum of Rs. 5,500, Rs. 20 for 20 years with a pension of Rs. 100 and a lump sum of Rs. 8,000, Rs. 30 for 15 years with Rs. 100 pension and Rs. 8,000 as lump sum and Rs. 60 for 10 years with Rs. 100 pension and Rs. 9,500 as lump sum. If the subscriber dies during the period, it can be continued by his nominee or he can have the amount repaid with 7 per cent interest. If the subscriber dies soon after completing payments his nominees will receive the pension for 30 years. The scheme is not only an important social security measure, it is also a piece of financial engineering which will promote thrift and saving and increase the investment resources of the State. If it spreads in rural areas among agricultural labourers it will have wide ranging effects on population growth and family size. Another welfare programme—the rehabilitation of the physically handicapped (See Vol. IV page 481) saw the establishment in November of Rs. 14 lakhs training cum production centre for training 75 physically handicapped persons in manufacture of spare parts for typewriters, cars and pump sets as part of the scheme to rehabilitate 20,000 such persons this year. 182 men and women apprentices also started their training mainly in the Government, transport corporations, Government press and data processing centre in November. Further a school for physically handicapped children at children's hospital was opened and the plan approved for a Rs. 30 lakh Institute for medical rehabilitation of physically handicapped and amputees with a provision of 125 beds at Karunanidhi Nagar to which the artificial limb unit of the General hospital is to be transferred.

National:

Fifth Plan and Second Annual Plan: The time-table for finalising the Annual Plan for 1975-76 and the Fifth Plan forecast in the last issue (Vol. IV, pages 669 and 670) should be revised. It is now clear that the second Annual Plan will not be finalised till mid January and discussions with the States and Union Ministries during December are taking place in 2 parts. The first part covers the 3 priority sectors, agriculture, irrigation and power—and within these 3 priorities full financing is being provided for completion of existing and spill over projects. In the process their allocation is being increased to achieve the appropriate physical targets. The second part covers the review and discussion on other development programmes, particularly

education and the social services, whose financing will be very limited, using what is left over after providing fully for the 3 priority sectors. The financial resources mobilisation for the second year will be about the high 1974-75 level of Rs. 4,344 crores leaving little marginfor further mobilisation except with regard to the agricultural sector. Parallelly with the review and discussion with the States and the Union Ministries on the second year plan, the revised Fifth Plan reviews and discussions will be conducted. The priorities in the Fifth Plan will be those emerging from that of the 2 Annual Plans. While as indicated in the last issue, the resources target will be attained in monetary terms its real value will be 30-35 per cent lower involving downgrading of a number of non priority programmes and phasing over the Sixth Plan of some which fall in the in between class. Power is receiving high priority and its alloeation is being raised from Rs. 6,190 crores provided in the Draft Plan to Rs. 8,000 crores in order to ensure achieving the desperately needed additional capacity of 16.55 million KW (unlike the disastrous performance of the IV Plan commissioning 4.3 million KW against the target of 9.3 million KW). This allocation might even get nearer the ministry requirements of Rs. 10,000 crores. This sector's strategy is to achieve stabilisation of power supply, quicker implementation of the programme, continuous power supply to steel, fertiliser and coal industries and the social objectives. The continuing projects will yield 10.8 million KW and the balance will be new schemes. 17 units of indigenously manufactured 200 MW sets are being set up in large capacity thermal stations in coal fields along with four pumped storage schemes with reversible pump turbines. U.P., Maharashtra and West Bengal are well provided and it is hoped that Tamil Nadu's projects will also receive the same consideration. On this basis, it is estimated that the revised (somewhat smaller) Fifth Plan will be ready by March 1975 for review by the National Development Council and presentation to the Lok Sabha.

Prices and anti-inflationary measures: The official wholesale price index as of October 26 stood at 319.8, compared to 323.2 on October 19 and 329 6 on September 28 as reported in (Vol. IV pages 623 and 624. (The RBI weekly statistical supplement of November 18 revised the September 28 index to 330 2). In October, prices fell by 1.1 per cent between October 19 and 26, and by 3.1 per cent in the 4 weeks September 28 to October 26. This decline in October prices continues the declining rate of inflation traced in the last issue from 3.6 in April to 1.48 per cent in September and in October the inflation rate is nil, and is likely to continue into November with a further fall in December, so that for the financial year the inflation is likely to be 20 per cent, rather than the 30.6 per cent for the year ending August 1974 (See Vol. IV page 623) and forecast also for the current financial year (See Vol. IV page 612). The steepest price falls in October have been in industrial raw material by 10 per cent and food articles by 4 per cent, with slight declines in machinery and transport equipment, manufactures and fuel, power, light and the lubricants The causes for this arresting of the inflationary spiral and the declining price trend must be traced to the 3 basic factors analysed in the last issue. In addition allowance must be made for the normal fall in prices which takes place every year between September and mid December, though this seasonal price fall did not occur in 1973 and 1972. The seasonal explanation is not a complete one because the same factors which operated in 1973—in regard to production – were in operation in 1974. The only difference is that unlike November 1973,

the Government has not had to announce sharp price rise increases in wheat, rice, coarse grains and petroleum products in 1974. The seasonal factors are the arrival of the Kharif harvests and the prospects of a good rabi crop which the rains have undergirded. It is also too early to expect the credit and monetary policies to affect prices, except that the tight credit policy has reduced speculation and the MISA has been effective in unearthing hoarded goods and arresting smuggling. Now the rabi crops will determine whether the price decline will continue or not. On the anti-inflationary front the further measures taken in November include: (a) the amendment to the MISA ordinance on November 16 suspending the right of MISA detenus for smuggling moving the court for release, (b) the slow down in the increase in money supply to 1.9 per cent between March and October 1974 compared to the 5.5 per cent increase for that period in 1973, (c) the increase in the tax collections in the first six months of the financial year by 57 crores (from income tax Rs. 55.9 crores), (d) Rs. 13.5 crores with RBI on account of 50 per cent compulsory deposits of non-dropout employees, (e) the second instalment of the Union Government market borrowing comprising 3 loans of Rs. 175 crores (against the balance of Rs. 261 crores budgetted for borrowing) and for which subscriptions from LIC and other institutional investors amounted to Rs. 179 36 crore, (f) the continuing tight credit policy announced at the end of October by RBI for the coming busy season with priority selective credit for increased agricultural production and food grains distribution, small scale industries and small borrowers particularly in wage goods and ancillaries to the core sector, exporters and in industry those engaged in producing fertilisers, pesticides, transport and electric equipment, basic metals and minerals, controlled cloth, edible oils, sugar, food grains, oil seeds, cotton and textiles, (g) the flow of RBI funds through rediscounting of bills is to be preferred (for Rs. 100 crores) to refinancing, the liquidity ration continuing at 33 per cent, the minimum statutory balance of commercial banks to be reduced from 5 to 4 per cent and the net liquidity ratio from 40 to 34 per cent—taking effect from mid to end December, (h) the additional 2 per cent that RBI has asked banks to charge as borrowings for excessive inventories and (i) the 2.5 per cent increase in new LIC business with 16.7 per cent premium income for the year ending March 1974. This monetary and credit restraint must on the other hand be matched by: (a) all out efforts to increase agricultural and wage goods production and (b) keeping down Government expenditures and deficits which the Government (ministry of finance) statement points to Rs. 80.5 crores being the RBI credit on October 4, 1974 compared to Rs. 544.5 on October 4, 1973, but on which another estimate based on the August supplementary demands of Rs. 352 crores, the November net demands of Rs. 18 crores, the DA costs for 7 rounds since the start of the financial year amounting to 315 crores—all point to a deficit nearer Rs. 400 to 500 crores against the budgetted Rs. 126 crores. This is where action is now needed.

State of Industry and Industrial Growth: Industrial production in the year 1974 continues to be sluggish. For the first five months, January-May 1974, a small increase of 1.8 percent was recorded compared to the corresponding period of 1973 when it declined by 1 per cent, touched 7 per cent in 1972 and was 1.7 per cent in 1971. Even within the 1 8 per cent rise in the first five months of 1974, the May industrial index at 197.2 was 2 per cent lower than April at 200.9. What increases there were took place in mining, paper, tyres and tubes, petroleum,

refinery products, basic metals, electric machinery and heavy industries, while chemicals, cotton yarn, cloth and jute textiles registered decline. In this situation the continuing decline in the Union Government's investments from Rs. 2,328 crores in 1972-73 to Rs. 2,052 crores in 1973-74 and an estimated Rs 2,000 crores 1974-75 is a major factor accounting for the industrial stagnation. In terms of 1965-66 prices, the 1973-74 outlay was a meagre Rs. 1,063 crores and 1974-75 Rs. 859 crores. The cuts have been made where they will hurt most such as in the railway wagon industry, (from Rs. 235 crores in 1972-73 to Rs. 207 crores in 1973-74), in steel from Rs. 54 crores to Rs. 9 crores and in most government companies. The only bright spot was the private sector where the Economic Times Research Bureau estimates the net capital formation to have increased from Rs. 455 crores in 1972-73 to Rs. 781 crores in 1973-74, gross capital formation from Rs. 893 crores to Rs. 1,253 crores, net savings from Rs. 159 crores to Rs. 246 crores, and the growth rate from 5.6 per cent in 1972-73 to 9.1 per cent in 1973-74. According to official statistics, 202 Indian companies act as subsidiaries of multinational firms, 538 have their branches in the country, adding to a total of 740 multinational firms operating in the Country. In the first 9 months of 1974, 774 industrial licences were issued compared to 624 in all of 1971, the previous highest, along with 911 letters of intent. But these quantitative indicators have not produced industrial growth and in fact at the November meeting of the Industries ministers it was revealed that at least five per cent of small industries were bogus, simply trading in scarce raw materials without undertaking any production. The review of the Industry Policy Resolution at the meeting led to a series of decisions to reorient the execution of the Industrial Development and Regulation Act so that it will develop industries and not simply regulate and control them, and that such development will be aimed at producing an industrial culture. Among the sound decisions made: (a) the Union ministries are to examine the substance of industrial licence applications positively, help the applicant to provide the information needed for approval, and advise the State Government concerned as to what is needed, (b) the automatic registration of DGTD of units which did not require licences or raw materials import, (c) the maximisation of production through removing bottlenecks to execution of approved projects and withdrawals of licences after a time limit from firms which have not acted on starting industries in backward areas, (d) the development of Joint Centre-State projects in industries like leather goods, (e) the co-ordinated supply of services like railway wagons, coal and power, (f) the increase of the investment limit from Rs. 7.5 lakhs to Rs. 10 lakhs for small scale industries and from Rs. 10 lakhs to Rs. 15 lakhs for small ancillary units, provided they supply a minimum of 50 per cent of their product of the parent industry, and continuing their benefit for 2 years after they cross the investment limits, and (g) linking the small units with STC and MMTC for their raw material requirements, with concessional finance for hire purchase of machinery for small entrepreneurs investing less than Rs. 2 lakhs. The remaining months of the year should produce results, if these decisions are fully implemented.

National Production Front :

Public Sector Performance: Public sector units have turned the corner and made a pre tax profit of Rs. 137 crores, after paying Rs. 126.5 crores in interest on loans, involving a net profit of Rs. 66.5 crores. They are diversifying their programmes to meet recessionary trends as in

the case of HMT (See last issue Vol. IV, page 672), increasing their capacity use which is now around 60 percent, and making long term corporate plans. The October performance of the 14 units under the Department of Heavy Industry continued to be satisfactory, attaining 91 per cent of their target, producing Rs. 442 crores against the Rs. 48.66 crores target. In the first seven months of the financial year, their production totalled to Rs. 257.69 crores compared to last year's Rs. 172.6 crores. BHEL leads in this good record, followed by HEC and HMT. This record should now spread to all public sector units, including the new Khetri Copper complex of Hindustan Copper which should follow the Ghatsila Complex performance of 76,175 tonnes for October. one of the problems faced by the units is delays in lifting their product by the customers. BHEL, Bhopal had Rs. 29.9 crores railway traction motors, generators and control gears not taken delivery of by the Railways because of the latter's revision of its loco manufacturing programme: Rs. 52 lakhs equipment similiarly for the Punjab Electricity Board remained unlifted. This calls for further strengthening the backward planning and linkages between public sector units.

Steel : The steel industry faces an ambivalent situation. Except IISCO where the breakdown of its blast furnace led to a reduced production in October, all other units were producing well, Bhilai to capacity and Durgapur and Rourkela well above 90 per cent. Bokaro with a daily production of 2,500 tonnes attained a 98 per cent utilisation of its blast furnace and coke oven batteries in October. The problem that the industry faces is with regard to the demand for steel. As at the start of November, 4 lakh tonnes were available and unsold, 3 lakh tonnes at the plants and one lakh tonnes in the 20 stock yards. Bhilai's stock was 1,20,000 tonnes, TISCO 70,000 tonnes, Rourkela 50,000 tonnes, Durgapur 35,000 tonnes and IISCO 30,000 tonnes. This stock position is despite HSL doubling its stock yard sales from 70,000 tonnes to 1,30,000 tonnes and good IISCO and TISCO sales. This loss of cash realisation by the producers is due to multiple factors, including restriction in the consumption of steel particularly in the building industry, following the ban (See Vol. IV page 635), some lack of distinction between management functions and responsibilities of SAIL and HSL resulting in the problems of multiple authority and remote control, and possibly the delay in decontrol of some items like billets, bars, rods and galvanised sheets as suggested in the last issue (Vol. IV, page 673). This over stocked supply position calls now for launching a large scale export programme of steel items whose use is restricted in the country. It is to this that SAIL and STC should now turn their attention.

Crude : With the rise in price of crude announced by the foreign companies as from October 1, referred to in the last issue (Vol. IV pages 673-674), further uncreased by Caltex from November by 21 cents to $ 10.46 per barrel, the Government released the additional foreign exchange to the companies and took steps to increase domestic production. In October it allocated Rs. 9 crores for importing 1,33,000 tonnes of extra crude and in November Rs. 10.79 crores for an additional 1,66,000 tonnes. This gave EXXON 91,000 tonnes, Burmah Shell 50,000 tonnes and Caltex 25,000 tonnes. This continuation of the foreign oil companies imports is due to the fact that during the busy season crude supplies cannot be reduced, the foreign companies increased price is still a little lower than the direct Government imports and their higher middle distillates yields are good. Of the aggregate additional 8,00,000 tonnes

of crude to be imported during the current financial year, 5,00,000 tonnes is in place of furnace oil imports which have been reduced. Parallelly the Government is increasing oil production from the Assam wells from 6 lakh tonnes to 14 lakh tonnes and work on Bombay High is being speeded to produce 10 lakh tonnes of oil in a year. These two projects will reduce the country's crude import bill by Rs. 201 crores. In Bombay High, the first 1,786 metres well is ready and work on the second 1,200 metres well has started and will be completed by early 1976. The plan to concentrate on part of the Bombay High structure without waiting to develop the whole field is sound and should be followed by similar action in the Kashmir oil area and exploration of the coasts of Kerala, Tamil Nadu and Bengal. The World Bank has called attention to the urgent need to expand indigenous crude production which at existing levels of production will fall short of the year's target—this year to 4.29 million tonnes instead of 5.92 million tonnes, next year to 5.76 million tonnes instead of 6.82 million tonnes, and to 8.84 million tonnes instead of the 11.42 million tonnes at the end of the Fifth Plan. To counter this, it proposes increased expenditures, no delays in foreign exchange flows, reduced delivery delays in equipment and deep drilling rigs and early completion of pipe lines and delivery facilities. On the basis of the crude stocks and imports, the full HSD and LSD needs of agriculture will be met for the rabi season. Last year's diesel consumption of 6.5 million tonnes by the States is again being made available this year. Tamil Nadu this year, because of the monsoon failure, will be operating all her 7 lakh pump sets and will need an additional quantum of HSD. The kerosene position has also been eased and from October the cut in Kerosene supply was reduced from 20 per cent (See Vol IV page 274) to 10 per cent and this increased supply will be available ~~at least till the end~~ of the financial year.

Coal : The October production of the Coal Mining Authority (CMA) was encouraging with an increase of 1 million tonnes over the October 1973 production. The production for the first seven months of this year, 1974-75 was 3.5 million tonnes over that of the same period last year, at which rate CMA will attain this year's target of 60 million tonnes. The Planning Commission's studies show that the Fifth Plan target of 135 million tonnes by 1978-79 can be achieved with an additional 10 to 15 million tonnes to meet the additional coal need that result from substituting coal for oil in Trombay, Sabarmati and Dhuvaran power houses, conversion of some industries' industrial boilers, economising on fuel oil in steel plants, starting of gasification plants and establishing coal based fertilizer plants at Sindri, Phulpur and Paradeep. But this coal estimate is also based on lower output targets in the industrial sector which the revised Fifth Plan will indicate. The coal gasification Plant at Ramagundam is being completed as the world's largest coal based factory, producing 900 tonnes of ammonia and 1,500 tonnes of urea per day, with large quantities of coal ash to be used for brick making and road construction and carbon dioxide to feed ancillaries like a dry ice plant. The coal supply problem is being gradually normalised, with two problems to which further attention needs to be paid. The first is the transport of coal by the railways particularly to the South (India Cements, Madras Cements and Tamil Nadu Cements) and the West (Porbandar & Dwaraka Cement Plants). One of the problem points is the transhipment of coal at Tiruchy for the South and Virangam for the West where the broadgauge turns into the metregauge. The unloading and loading from broadgauge into metregauge

wagons cause long delay, resulting some times in the coal being disposed of locally. This bottleneck must be removed. The other problem is the price of coal which industrial consumers point out is 87.3 points higher, as a direct effect and 110 points higher with other elements like transportation and handling charges taken into effect in comparison with prices in January 1974, coal prices have a multiplier effect on the prices of steel, paper, soda, ash, cement, power, railways and hence it is necessary to examine in an integrated manner the necessary price rise in this basic commodity.

Sugar: Sugar production in September 1974 was 24,000 tonnes (against 40,000 tonnes in September 1973). bringing the 1973–74 season total to 39.49 lakh tonnes, being marginally higher than last season's 38.73 lakh tonnes. The total despatches for the season were 35.22 lakh tonnes for internal consumption and 4.46 lakh tonnes for export, compared to the last season's 35.14 lakh tonnes for internal consumption and 1.08 lakh tonnes export. The closing stock for this year is slightly lower than last season's 8.43 lakh tonnes at 8.24 lakh tonnes. In order to further increase production for the next season, December 1974 to September 1975, the Government at the end of November announced a detailed scheme of rebate in excise duty for factories which began production in 1971-72. For October—November 1974, the excess production over the 2 months production in 1973 will receive a rebate of Rs. 60 per quintal on free sugar sale and Rs. 16 per quintal on levy sugar. From December 1974 to September 1975, the rebate will be on a slab basis: on an excess of 7.5 per cent over the previous season the rebate will be Rs. 20 per quintal on free sale and Rs. 5 per quintal on levy: on the next 10 per cent excess, Rs. 40 and Rs. 10 per quintal; on the further 10 per cent Rs. 50 and Rs. 14 quintal; on the further 10 per cent Rs. 60 and Rs. 18 per quintal; and above 37.5 per cent Rs. 82 and Rs. 22 per quintal. Sugar production must increase both to meet the rising domestic demand and booming export market.

Cloth: As reported in the State section in the last issue (Vol. IV page 665) for the Country as a whole, the Indian Cotton Mills Federation claims that as of the end of November ihe accumulated stocks of cloth with mills had increased by 125 per cent and that of yarn by 150 per cent since February last. This accumulation it reports is despite the 20 per cent reduction in cloth prices. Cotton yarn prices have declined by 40 to 50 per cent and staple fibre yarn prices even lower. It requests lifting the credit squeeze, restoring to traders credit facilities and the fixing of reasonable yarn prices by Government. The textile commissioner on the other hand points out that the stock accumulation is due to consumer resistance to the very high prices charged by the mills and points to the mills which did not unreasonably raise prices and offered the normal 20 per cent concession not facing the accumulation problem. His solution to the crisis is to roll back cloth prices to 1973 level and not cut back on production. The price rise in cloth and the ensuing consumer resistance is the main problem and it is at this level that the problem should be tackled.

Cars: Production in the automobile industry is declining. In September, Hindustan Motors production declined to 1,000 cars against the 1973 monthly production of 2,400 cars. For October and November the production further declined to 800 per month. Similarly the October production of standard cars (Gazel) has declined by 50 per cent to 800 per month compared to last year's monthly produc-

tion. The long waiting lists for car purchasers have disappeared, and despite the periodic price revisions allowed by the Government, the industry is not breaking even. The major reason is the very high cost to the car owner of running and maintaining a car—the 350 per cent increase in petrol prices, and increased costs of lubricating oil, tyres and tubes and running costs generally plus difficult credit availability. There is thus a trend to switch over from cars to trucks and buses by the companies. Standards' production facilities are so integrated that it can switch between delivery vans, one ton trucks and Gazel cars and it is making the switch. Similarly Hindustan Motors is moving over to commercial trucks. For the present, with the definition of national priorities in terms of food grains and wage goods, this emphasis on commercial transportation and the attainment of car production are not unwelcome.

Fertilisers: A week after the ministry of agriculture announced in mid June that there will be a nitrogenous fertiliser shortage of about 30 per cent in 1974-75, the Fertilizer Corporation of India reports a 30 per cent fall in demand for 1974-75 for the Country. There are pockets of fertilizer scarcity in the Northern and Southern regions, but Governments and co-operatives in Andhra Pradesh, Gujarat, Madhya Pradesh and Orissa have stopped indenting for fertiliser supplies from FCI. There are heavy stock piles in Government and Co-operative godowns and a kind of buyers market in fertilisers has developed. This situation is the cumulative result of several forces — 90 per cent increase in fertiliser prices in June 1974 compared to June 1973, tight money policy, a rigid distribution system, adulteration and black marketing. Farmers are not resisting these conditions, they are using fertilisers economically and going in for composts and organic manures. Thus the supply this year will be 2.3 million tonnes, including 1.3 million tonnes of internal production. In early November the largest co-operative fertiliser at Kalol based on natural gas to produce 4 lakh tonnes of urea went on steam. Along with its Kandla Plant, the supply position is somewhat eased as a result.

Agricultural Production: Against the 1973–74 estimated food grains production of 103.6 million tonnes comprising 66.72 million tonnes of Kharif cereals and 36.88 million tonnes of rabi, the 1974-75 Kharif food grains production is estimated at 60 million tonnes, which is a shortfall of 7 million tonnes over last year's Kharif. Kharif procurement has once more been set at 5 million tonnes—the same as last year's kharif target when 3.8 million tonnes were actually procured. It is unlikely that with the smaller crop, this year's procurement will be better. By the end of November 5.55 lakh tonnes of rice had been procured, with Punjab leading at 2.5 lakh tonnes, followed by Tamil Nadu 1.7 lakh tonnes, Haryana 60,000 tonnes, U.P. 34,500 tonnes, Andhra Pradesh 20,000 tonnes and Kashmir 18,000 tonnes. November also saw the rabi sowings being prepared and launched. One distrubing element is the decline in per hectare wheat production in Haryana despite the extension of HYV, which has expanded from 7.4 lakh hectares in 1966-67 to 10.2 lakh hectares in 1973–74, but with per hectare production declining from 2,111 kg., in 1968-69 to 2,078 kg., 2,041 kg., 1,757 kg. in the following years and a low 1,559 last year. The result is that the kharif output is likely to be 75 per cent of the 14.26 lakh tonnes target and so the government has raised the rabi target to 34.24 lakh tonnes. Rajasthan has fixed a rabi target of 42 lakh tonnes (against last year's 40.3 lakh tonnes) of wheat, barley, gram and pulses. Its attainment will depend on the winter rains to refill

the tanks which were used to save the kharif crops, the availability of the HYV and adequate credit. In Assam, rabi sowing started at the end of November covering 1.1 lakh hectares under wheat, 60,000 hectares under boro paddy and other areas under pulses, vegetables, fruits tapioca and sweet potatoes. The rabi target is 3.44 lakh tonnes (against last year's production of 1.62 lakh tonnes). The Union Ministry as part of the rabi and long term programme is paying special attention to completing the major and medium irrigation projects, where the record is disturbing. In 8 projects no potential has been created, in 14 others some progress has been made, the net effect being to increase the cost of these projects by Rs. 1,000 crores, ten years after they were started, the most glaring being Nagarjunasagar which has jumped from Rs. 91 crores to Rs. 312 crores and Pochampad from Rs. 40 crores to Rs. 146 crores. The food grains public distribution system with about 5-6 million tonnes of internal procurement and 5 million tonnes of import should be serviced this year at least in minimum terms. This total food procurement, internal and external, will be financed by the banking system under the leadership of SBI to the tune of Rs. 1,000 crores, FCI handling the imports, and RBI providing full refinance beyond Rs 450 crores. The rabi oil seed programmes will highlight sunflower cultivation, which till now has been grown over 2,00,000 hectares of kharif but is to be grown during rabi in all of Andhra Pradesh and districts of Haryana, Gujarat, Karnataka, Maharashtra, MP, UP, West Bengal and Tamil Nadu. The cotton crop of the past season, 1973–74, has been good. Though the hectarage declined a little from 7.68 million to 7.6 million, the production increased from 54.17 lakh bales in 1972–73 to 58.19 lakh bales in 1973–74. The decline in area was in Maharashtra, MP, Punjab, Rajasthan and UP, the increased production due to HYV was in Andhra, Gujarat, Karnataka, Haryana and Tamil Nadu. The jute crop also has been good and by the end of November FCI had purchased 3.6 lakh bales of jute. Tobacco production is facing a problem due to the decline in demand of cigarette manufacturing firms, so that the growers have a stock of 10 million Kg., valued at Rs. 10 crores, As a result tobacco plantations are switching over to cotton, the largest grower, Andhra Pradesh, reducing its tobacco acreage from 3.65 lakhs to 2.5 lakhs. This may be a long term trend and conforms to national priorities.

Exports: India's exports continued to expand in money terms during October. For the developing countries as a whole also, GATT points out that exports expanded by 37 per cent in dollar terms but only by 8 per cent in volume in 1973 compared to 1972. Even this increased dollar value exports break down into a $ 21,000 million surplus for oil exporting developing countries and a deficit of $ 10,000 million for the others, giving a net suplus of $ 11,000 million, which does not help countries like India. Even with the oil surpluses the share of the developing countries was only 18.1 per cent in the world export trade, while their imports rose sharply, particularly on food grains, by 60 per cent. This is also the Indian foreign trade trend. In value terms, Indian Exports expanded by 22 per cent in 1972-73, by 26 per cent in 1973-74 and in the first six months of the current year by 41 per cent at Rs. 1,518 crores. The faster rate of import growth however led to a trade deficit of Rs. 483 in 1973–74 and for the first six months of this year, 1974–75, amounts to Rs. 248 crores, the imports being Rs. 1,831 crores. From this point of view and that of the spiralling cost of food grains, fertilisers, fuel, industrial inputs imports and the freight hikes,

there must be a faster growth of exports and the proposal of UNIDO for a scheme of indexation so that raw materials exports rise as the price of manufactured imports increase should be pursued. For this year, sugar export prices are booming, rising from a third of the Indian domestic price in 1973 to over double Indian prices in November 1974, at £ 600 per tonne in London and £ 750 per tonne in Paris. As noted earlier, 4 lakh tonnes of sugar exports were completed by November, earning Rs. 200 crores and the target of 5 lakh tonnes which should be further increased (by controlling the production of Khandasari) to 7 or 8 lakh tonnes could double the earnings to around Rs. 400 crores. Sugar can thus displace the 3 major export earners—tea, textiles and jute. Iron ores exports are also picking up and for this reduced export target of 2.7 million tonnes (from 3 million tonnes) of which 1.2 million tonnes had been exported upto October requires 47 railway rakes a day to carry 10,000 tonnes from Bellary and Hospet to the Madras harbour. The 3 day meeting of ministers in early November in Geneva after a full discussion in which Australia, Canada and Sweden opposed the formation of an OPEC type of association, agreed in principle to an Association of iron ore producing countries which will function on the principle of co-operation with the importers, and set up a commission to draft the charter of the future association. The Indian Minister of Commerce played a leading part in this agreed compromise, and the secretary of the Commerce Ministry has been appointed the convener of the commission to draft the charter for approval by the ministries in April, Exports of plastic products and linoleum are increasing, passing last year's target of Rs. 12 crores by Rs. 8 lakhs and reaching in the first six months of 1974-75 Rs. 6.9 crores against the target of Rs. 16.5 crores. The export of accumulating steel and scrap (metal 1.5 lakh crores) is also under consideration. In view of the declining domestic demand, increased exports of tobacco to the Soviet Union and Egypt are under negotiation. Capital goods exports which formed one third of last year's Rs. 180 crores of engineering exports are slowly moving up to form one half of such exports. Tea exports to Iraq (10,000 chests) and to UK, Jordan, Australia and West Germany by the Tea Trading Corporation of India have also made a start. Silk exports are another item expanding from Rs. 9.7 lakhs last year to a target of Rs 87 crores by the end of the year 1978-1979. Negotiations are under way with EEC on a textiles and multi-fibre agreement under which there will be an overall growth of 7 per cent in exports to the Community and some diminution from 1 to 0.5 per cent in the exports to the UK. The November Indo-Hungarian trade agreement will diversify the trade between the 2 countries and provide for joint exploitation of bauxite resources. India joined as an observer member the International Bauxite Association at its meeting in November in Guyana. The Commerce Ministry estimated that to achieve this year's export earnings target of Rs. 3,000 crores, an export credit of Rs. 900—1,100 crores would be needed, together with a restructuration of the terms and conditions of such credit.

Aid: In November, the EEC granted its dealers licences to export 5,00,000 tonnes of soft wheat to India. As part of the commitment of oil exporting countries to aid developing countries with $ 10,000 million, Iran pledged to India in November a total of $ 900 million as long term loans, including a gift of $ 200 million for oil purchases. Iraq also committed 2 million tonnes of oil, half of it as gift. The World Bank has offered Rs. 32 crores to finance minor integrated fishing harbours in Andhra Pradesh, Tamil Nadu and Kerala.

International :

Bangla Desh : India and Bangla Desh have under consideration replacing the present barter trade agreement by a more realistic and balanced trade agreement. Both countries realise that neither country will be able to meet the provisions of the present agreement (See Vol. IV pages 133 and 542) The new agreement should make provision for normal foreign exchange trade payments between the two countries. On another front, the Indo-Bangla Desh joint River commission at its November meeting made some progress on the Farakko project to meet Bangla Desh's requirements during the dry season. India has extended Bangla Desh credit of Rs. 10 crores for purchase of essential goods to meet some part of the problems caused by the floods (See Vol. IV page 590).

Pakistan and Ceylon : In October Pakistan and India agreed to reopen telecommunication and postal services between the two countries, followed by an agreement on travel and travel facilities between the two countries. After an interruption of 10 years, a further agreement at the end of November was signed for the resumption of trade starting on an inter governmental basis with the most favoured nation treatment by both sides and payments in foreign exchange. The commodities referred to as examples in the agreement are cotton, engineering goods, jute manufacture, iron ore, railway equipment, rice and tea. Joint Indo-Ceylon projects in animal husbandry, fertiliser and machine tools and a feasibility study on a power grid linking the two countries were agreed to in November by the two countries.

World Monetary Reform : Behind the weakening of the dollar and the pound sterling and the rise of gold to over $ 190 an ounce in November and the continuing heavy balance of payments surplus of West Germany are the recessionary trends of the industrialised countries and the accumulating surplus reserves of the OPEC countries. The United Nations Economics Commission for Europe (ECE) has in its November report warned of a recession in Europe caused by the liquidity squeezes which hit the investment and caused a weakening of consumer demand. The U.S. officially admits moving into a recession with a 12 per cent inflation, 6 per cent unemployment, high interest rates, lagging retail sales, cut backs and lay offs in auto and other industries and a declining GNP. The other problem is the mounting reserves of the OPEC countries which according to IMF reports increased by $ 25,000 million at the end of September 1974, increasing from 7 per cent to 19 per cent of total world reserves. Saudi-Arabia which had $ 4,000 million with the IMF last year ranking 18th is now the fourth with the $ 11,500, behind U.S., West Germany and Japan. The U.S. Secretary of State pointing to these huge balances endangering the world monetary system proposed the creation of a new international financial institution to redistribute $ 25,000 million next year in investment capital. The new institution is proposed to protect the IMF and the World Bank from the risks of these enormous funds, avoid disruptive national policies and ensure that no oil consuming country is compelled to accept financing on intolerable terms. This proposal is accompanied by a five point strategy, making countries relatively independent of the OPEC oil sources on this basis of strength to enter into dialogue with the OPEC countries. France on the other hand is planning a joint oil producing and consuming countries conference to work out a modus vivendi of the economic, financial and monetary crisis. The reform of the international monetary system must

await the reduction of these larger issues. India in the meanwhile has itself decided to continue for the present its link with the pound and not to set out itself floating the Rupee, which with the pound is floating anyway, as seen in our booming export trade and avoids dismantling the needed exchange and import controls and entering the shaky forward exchange market.

World Food Conference: The World Food Conference (See Vol. IV pages 491, 544 and 634) called by the United Nations met in Rome from November 6-16 and was attended by over 1,000 delegates from 123 countries, including the Soviet Union and China which are not members of FAO. The major decisions of the Conference among the 20 adopted resolutions were: (a) A World Food Council at the ministerial level to be elected by the U.N. General Assembly to report to it through ECOSOC and with its Secretariat in FAO, Rome, to supervise the anti-hunger strategy, direct investments in food pro. duction in needy nations. and oversee a data sharing plan to keep nations up to date on weather, crop information and agricultural output fluctuations: (b) a World Agricultural Development Fund with a governing board of donor and receiving countries to be administered through existing UN agencies: (c) the level of international food aid covering both grain and money to be doubled to 10 million tonnes in each of the next 3 years: (d) a system of nationally held but internationally co-ordinated food grains banks to provide a buffer against bad weather and other natural disasters: (e) negotiations to be undertaken on a long term plan to provide an insurance policy against hunger by co-ordinating national food stocks policies of producer nations: (f) better export prices to be developed for poor nations that export food and wider access of the developing nations' food and farm products to the markets of the rich countries and price stabilisation to be assured; (g) a request to countries to reduce their arms expenditure and use the savings to finance food production in developing countries: and (h) resolutions on eradication of the tsetse fly, to improve role of women in nutrition, to improve water management, for rich countries to share their agricultural technology, pesticides, fertilisers, seeds and to accelerate rural development programmes in poor countries. Looking at the conference results in light of the worsening world grain situation estimated in November by the US Department of Agriculture in which wheat production is down to 351.7 million tonnes (from the last issue estimate of 381.6 million tonnes, Vol. IV page 680) world stocks at 48.8 million tonnes and reserves at 37.8 million tonnes and a steep fall in coarse grains production (by 40 million tonnes), there is reason to be disappointed at the decisions. The main achievement was the highlighting of the problem of the food crisis and world hunger. There was however few hard commitments to feed the world's 500 million hungry people. The Food Council has limited authority, the Fund will have no additional U. S. contributions or those from the other rich countries, the forecasting programme does not have China and the Soviet Union in it, and the resolution on reduced arms spending was adopted by those who spend little on arms. The major gain is that the developing countries now see that it is their own efforts to solve the food problem, with such limited help as the new Council and Fund to which pledges of $ 1.5 million were made, that the future solutions of food and hunger.

World Aid: Government aid to the developing countries has declined by 33½ per cent over the past 10 years according to an ECM report, which however

expect that total of all aid including commercial loans will be $ 10,000 in 1975 and $ 20,000 in 1976. The report divides developing countries into 8 groups on the basis of need: (1) Small poor countries with low export surplus; (2) heavily populated countries with a vast internal market; (3) poor countries dependent on exports; (4) medium income countries producing primary products; (5) high income countries producing primary products; (6) medium income countries becoming industrialised; (7) Semi-industrialised high income countries; and (8) oil producing countries with low capacity to absorb imports. This new classification suggests some new aid criteria.

World News-Print: A November UN report calls attention to a shortage by 1978 of 11 million tonnes of paper and paper board in the rich countries and 5.1 million tonnes in the poor countries and the very serious effect it will have on schools and literacy programmes in the poor countries. It proposes that (a) the rich countries release some newsprint, paper and boards to the poor countries, (b) the poor countries which have 55 per cent of the world's forests, produce at present only 4 per cent of world's newsprint and spend $ 730 million of their limited foreign exchange in importing newsprint which has shot up from $ 187 per tonne to $ 400 (Indonesia paid $ 600 and Afghanistan $ 700), should build the infrastructure to use more adequately their forest resources. This of course does not apply to India, with its low forest area of 23.1 per cent where a long term effort to increase our eucalyptus, pine, bamboos and legumes must be undertaken, together with recycling our paper wastes.

World Tourism Organisation: A new inter-governmental organisation, the World Tourism Organisation, (WTO) was established in early November replacing and taking over the functions of the International Union of Official Travel Organisation. WHO will pay greater attention to the developing countries, will have greater access to UNDP as a UN specialised agency and will provide for greater travel and exchange between countries. India has invited the organisation to set up its headquarters in this country.

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II Agricultural Development

Paddy:

As noted earlier, Kuruvai paddy procurement by the end of November was 1,6 lakh tonnes by the State government and 12,500 tonnes by FCI. To attain this target of 2 lakh tonnes (down from 3 lakh tonnes) the government announced in mid November, that it will resort to requisitioning farmers' stocks if needed at the procurement rates fixed by the Union Government. It will be recalled that in all districts except Thanjavur, there is both levy procurement by the State and direct purchases by the State from the

farmers (See Vol. III pages 635-636). After consultation with the Union Government, the State Government announced on November 5 a dual procurement price for paddy for the Kuruwai and Samba Season as from December 1, postponed after a further consultation with the Union Government to December 15, when paddy procured under the levy system will be under the Union Government rates: Coarse—Rs. 74, Medium—Rs. 78, Fine—Rs. 83 and Superfine—Rs. 86, and paddy bought by the government direct from the farmers will be under State Government rates: Rs. 85, Rs. 90, Rs. 95 and Rs. 98. In this connection the State Government has requested the Union Government and FCI to remove the discrepancy in grading of paddy between this State and Pondichery. From treating ADT—27 and Karuna as coarse varieties in 1973, and later accepting the State Government's advice to treat them as medium varieties, the union government was in November 1974 grading them as fine varieties causing a price disparity between Thanjavur and Karaikal. The Kuruvai harvest over 4.2 lakh acres in the Thanjavur district and 4.3 lakh acres in other districts will be completed in early December with a somewhat lower yield which was between 900 kg. to one tonne per acre against the normal 1.4 to 1.5 tonnes per acre. The Samba crop over 7.5 lakh acres and Thaladi crop over 3.5 acres in Thanjavur District also face difficulties due to the poor performance of the North East Monsoon. At mid November, the Mettur reservoir level stood at 69.7 feet as against 110.2 feet in November 1973. The normal 50 cm of rain in October was absent and to overcome the water shortage, the turn system in the Mettur reservoir was introduced from November 22 under which water is let out in the Cauvery and Vennar systems in such a manner as to put in question the Thaladi crop. Outside Thanjavur district, 7.51 lakh hectares are irrigated by the 36,000 tanks in the State and except for the Kaveripakkam and other North Arcot tanks, all the others are in the same dry condition due to the failure of rains. North Arcot's Kaveripakkam and 20 other tanks were filled by the diversion of the Palar freshes in September and October, so that 25,000 hectares in this district has assured water for the standing Samba and the second Navarai crop. The other districts are in a bad way and will have to use their wells for Samba, the second crop at this stage being almost given up. Some taluks such as Kovilpatti, Vilathkulam and Ottapidaram in Tirunelveli are actually drought striken with their cholam, cumbu, and other crops lost, and the dry state of Ramanathapuram has led to the migration of farm workers to Thanjavur. One result is that rice prices which had been declining have begun to rise in Tirunelveli, Madurai, Salem and Tiruchi and the Government will have to undertake relief measures in addition to operating a good distribution system.

Research results :

The research results of experimenting with inter crop cultivation with regard to the long duration (9-10 months) tapioca crop by the Tamil Nadu Agricultural University have demonstrated that while cow peas, bhendi, grams, and sun flower reduce the yield of tapioca and monetary return per acre, onion as an inter crop reduces tapioca yield only by one per cent and brings an additional income of Rs. 1,036 per hectare. The spread of onions as an inter crop in tapioca plantings should now be diffused. Another experiment to counter the pollutive effects of chemical pesticides has succeeded in identifying pests destroying microbes, including some of the pests which can be destroyed by exploiting their diseases. In view of the limitation of

nitrogenous fertilisers complained of by the Thanjavur farmers, the successful research into the use of blue green algae as a means of enriching nitrogen in the paddy crop soils is now being diffused. The algae flourish in water logged paddy yields and increase paddy yields by 10 per cent and even more when given half a dose of nitrogen. Two new varieties of long staple cotton have been developed in Coimbatore which can completely replace the best Egyptian varieties used for spinning 100 to 120 counts. The regional section of IARI, Coimbatore has through crossing Sujata with Sea Island St. Vincent evolved a new variety 'Suvin' (referred to in Vol. I No. 5 page 1, No. 9 page 9, Vol. II No. 3 page 8) which the Technological Research Laboratory in Bombay has demonstrated to give 122s in spinning. It is currently being grown in this State in 5,000 acres and can be grown in Andhra Pradesh and Maharashtra. The Tamil Nadu Agricultural University has also evolved a cross between American cotton and the Barbadense variety into CBS-156 which with a staple length of 36 mm can spin 120s. Both are disease resistant and high yielders. When grown widely, they should replace the 8 to 10 lakh bales costing Rs. 40 crores imported annually from Egypt and Sudan. The University has also completed research into the jasmine oil and essence to be extracted from jaathi malli, which is comparable to jasmine concrete. The normal yield of 0.247 per cent has been increased in the case of Paari mulli to 0.309 per cent. The University has also produced a plant for extracting the essence with a 10 kg. of flowers capacity a day machine at a cost of Rs. 30,000. The annual income from 12 kg. of essence per acre can yield between Rs. 36,000 to Rs. 72,000, depending on international prices. A Rs. 1.20 lakh tropical fruit research centre is being established at Kudumianmalai.

SFDAs and MFALs:

Further to the extension of the Small Farmers Development Agency (SFDA) to the districts referred to in Vol. IV page 549, the State Government with the agreement of the Union Government announced in early November its decision to extend SFDAs and the Marginal Farmers and Agricultural Labourers Agencies to all the 14 districts in the State. Under this extended programme, each district will spend upto Rs. 1.60 crores to assist small and marginal farmers, and provide Rs. 30 crores for agriculture and animal husbandry loans over a five year period. In the six districts to date Rs. 10.5 crores have been disbursed as loans, and Rs. 3 crores as subsidy to 1.32 lakh farmers. On the basis of this experiment and in accord with the objective of attacking poverty, the programme should be extended to cover all small marginal farmers and agricultural labourers.

Rice Milling:

Further to the recommendations of the Seminar on the rice hulling and milling (See Vol. I No. 11 page 9), under the guidance of the Paddy Processing Research Centre at Tiruvarur, a new rice milling technology has been adopted by rice mill in Kuttalam, under which using some mechanical units in the hulling unit, dehusking is separated from polishing and sorting the dehusked paddy before polishing. The result is a production of quality rice and high quality bran. The Kuttalam mill which processes 8.5 tonnes of paddy a day, produces now one additional quintal of paddy and 400 kg. of bran with a 22 per cent oil content. With an investment of Rs. 20,000 for the additional equipment, the Kuttalam mill has produced in additional rice and bran recovery, an extra return of Rs. 48,587. For the country, the use of this technology would yield an additional 5 lakh tonnes of rice and 3 lakh

tonnes of edible rice bran oil. 8 other mills in the district have adopted the technology and 8 more are planning to do so. To use the oil rich rice bran from the district, a Rs. 15 lakh 15 tonne rice bran extraction oil plant is being set up by FCI at Sembanar Koil. The deoiled cake after extraction of the oil makes a rich source of animal food.

Sericulture :

Sericulture is fast developing in the State (See Vol. IV page 547), with Coimbatore district recording 1,500 kgs. of cocoons per hectare, which is over double the Japanese per hectare production. Of the total sericulture acreage of 9,000 in the State, the 500 acres in Coimbatore has reached this high production potential and is planning to produce 50,000 kgs. of quality silk by the end of the Plan. To aid this, the Tamil Nadu Agricultural University is launching a Rs. 2.5 lakh pilot project over 5 acres of land to provide technical expert aid to the farmers. The expansion of the sericulture programme in the State will meet the growing needs of the silk weaving industry in Conjeevaram, Arni, Salem, Coimbatore and the planned programme in the Dharmapuri district, as a growing contributor to attainment of Rs. 87.50 crores silk export target of the Fifth Plan.

Fish Farming :

The Tamil Nadu Fisheries Development Corporation's 4 point programme—deep sea fishing. extension of mechanisation of fishing, improvement of harbour facilities and improved processing, marketing and finance is now well under way. It is acquiring 4 out of the 60 imported sea trawlers and 4 indigenous ones. It is pressing the Union Government to locate a Pelagic Fishery Survey Project on the East Coast to locate the trawler worthy areas. The fishing harbours are nearing completion in Madras, Tuticorin, Chinnamuttam and Cuddalore. To serve the 3 lakh fishermen, mechanised boats are being acquired at the rate of 250 which will be increased to 500, the cost of which will be met by bank and ARC loans. There are problems of the increasing diesel prices and declining exports to traditional (U.S., Japan) markets which can be overcome by improved catches, some subsidies and diverifications of export markets.

Coffee, Rubber and Tea :

Coffee prices rose in November to $ 62 per hundred pounds. Coffee producers in Asia, Africa, and Latin America, members of the World Organisation of Coffee Producers have decided to keep 20 per cent of this season's harvest off the world market to prevent speculation and maintain fair prices. In India, the Coffee Board receipts in September 1974 were 85,300 tonnes (down by 4,000 tonnes compared to 1973 September) and exports till the middle of October were 39,602 tonnes and will reach 53,000 tonnes. Next season's production is estimated at 90,000 tonnes. The rubber situation has changed completely. In place of the large stocks leading to the export of 2,700 tonnes (See Vol IV page 207), there is now a gap of about 17,000 tonnes between the production and consumption of natural rubber, which should be met by both imports and increased internal production. India's tea production during the first 3 quarters of 1974 recorded a rise of 10.4 million kg. at 351 million kg. because the North Indian production increased by 11 million kg. to 280 million kg. and South Indian decreased by 0.6 million kg to 71 million kg. following the August-September strike in Kerala. In Tamil Nadu the industrial dispute on way expenses and staff categorisation in 70 tea and coffee plantations was settled in early

November without a strike. Tea exports from India increased in January-July 1974 by 11 million kg to 81 million. Both Africa and Sri Lanka recorded declining production and exports. As a consequence, prices in UK and US rose, leading the UK government to subsidise tea prices by £ 15 million. The tea planters have been well compensated for the rise in wages, fertilisers and packing materials (See Vol IV p. 596). Even internal prices rose—the leaf grade from Rs. 7 to Rs. 9.80 per kg and dust tea from Rs. 6.28 to 8.20. North India tea rose by Rs. 2 per kg. Tea export earnings will consequently increase.

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III Industrial Development

Salem and Neyveli :

There was a week's interruption of work on the Salem Steel project following a strike by the workers in the Hindustan Steel Works Construction Company. The rate of execution of the project and that of Vishakhapatnam and Vijaynagar will however depend on the decision on resources by the Union authorities. The new minister of steel assured the parliamentary consultative committee that the project reports of Vishakhapatnam and Vijaynagar will be examined and a decision on their execution will be made by the end of the year. If however all available funds in the ministry are allocated to the expansions plans of Bokaro and Bhilai, the execution of these projects will be delayed. For the expansion of Neyveli, Southern Structurals has entered into consortium arrangements with German firms for the production of mining machinery, bucket steel excavators and conveyor systems. This is the first stage expansion from 4.5 million tonnes to 6.3 million tonnes. Action has yet to be taken on the urgently needed second mine cut.

Madras Refineries, SPIC & Madras Fertilisers :

With Madras Fertilisers' resumption of Production from mid November, after the fire accident (See Vol. IV page 498) and the five months' closure, the 13,000 tonnes naphtha stock accumulated at Madras Refineries was made available to it and its expansion plans referred to in the last issue (Vol. IV pages 686–687) can proceed apace. MRL, however faces for the current year a loss compared to last year's profit of Rs. 6 crores, the extent of the loss depending on the rise in the price of crude which all refineries have had to face. SPIC has begun despatching 1,600 tonnes of urea per day to meet the fertiliser demands in the State.

SIDCO and Instruments Scheme :

SIDCO recognised as an export house, is making available Rs. 30 lakhs in foreign exchange for export oriented small units to help them purchase components and raw materials. This will further expand the export potential of small scale industries in the State. Further in the Adyar

Technological Complex, the Rs. 40 lakhs project for functional developed plots for electric, electronic and instrument industrial units is well underway and its first phase of setting up 60 units with an investment of Rs. 180 lakhs will be completed by July. Its second phase which will be completed by July 1976 will involve an investment of Rs. 220 lakhs by the State, private and joint sectors, employing in the 2 phases about 2,000 persons. The adjacent Vikram Sarabai Instronics Campus (See Vol. IV pages 211, 293 and 551) has 52 units engaged in producing 20 items ranging from electronic processes and controls to stand by generators for high altitudes and stereo systems feeding both the internal demands of Bharat Electronics, Electronic Corporation of India, Indian Telephones as well as the export market. The campus's second phase is underway to house 9 large units, 16 small units and TIDCO's TV receiver and Precision Instruments Projects. A special ancillary estate for 15 electronic units is also developing within the campus. The Central Electronics testing laboratory (See Vol. IV page 551) is nearing completion on the campus at a cost of Rs. 40 lakhs. Despite a late start, the State is emerging as a major element in the electronics industry.

Oil and Shipping :

ONGC and State Government engineers are at work on oil prospecting and drilling in the State. So far 16 deep wells have been completed, two showing gas and one oil. The rocky terrain on the coastal plains are being surveyed seismically for locating the oil fields. 33 foreign companies have expressed interest in drilling in this area. The Soviet seismic ship has completed its survey off Karaikal and the Palk straits and the areas are ready for concessions. Further the first 6,500 metres well is to be located in Mandapam and for this purpose the State is being allotted a rig. Also there is a request for the ONGC seismic survey ship to be used on the off-shore survey to complete the preliminary findings of the Soviet ship. On the shipping side, the Poompuhar Shipping Corporation has acquired two ships—one Indian and the other Japanese. These two vessels are being used to transport coal from Calcutta to Madras for our Thermal stations and will on their return voyage carry wheat. Their should be some stability resulting in the power system.

Paper :

Paper shortage and high prices continue in the State and the Country. A paper factory using straw as raw material is being started by a Sivakasi Group, which for the size has a large number of presses requiring 6,000 tonnes of paper per annum. In this scarcity situation, where speculation and black marketing become rife the Federation of Paper Traders' Association is making a special effort to ensue a regular supply of stock from mills, wholesalers and distributors on the basis of the offtake in the 5 years 1968-73, and particularly to ensure supply of white printing paper for text books and educational use. In addition it has drawn up a code of conduct for its members which other distributive trades might well follow. The code enjoin on its members (a) never buying or selling without bills and never taking premiums, (b) never refusing to sell to regular customers, (c) maintaining standards of social ethics and, (d) co-operationg with the government in observing all fiscal and labour laws.

Textiles :

Further to the stock accumulation referred to in the last issue (Vol. IV, pages 683-684) and the textiles accumulation problem referred to in the National section, the 189 mills, members of the Southern India Mills Association report that their

stocks increased in October to 62,440 bales of 180 kg. each and a physical stock of 81,777 bales, tying up their working capital of Rs. 45 crores. Production during October continued at 1,16,432 bales of 180 kg. each, which was 15,168 bales less than September due to closing of the third shift by some mills affecting 15.000 workers. The consumption of yarn by the composite mills during the month leaves 92,832 bales of 180 kg. each for the decentralized handloom sector, which as will be noted later, is itself facing a crisis. The Association has appealed to the four State governments to help in the situation by purchasing part of the accumulated stock at reasonable prices. With the 40 per cent cut in power supply from December 1, and some roll back in the prices, this problem of stock accumulation should be a short term phenomenon.

Handlooms:

The handloom industry in the State is also facing a serious crisis of accumulating stocks but for a different set of reasons. First the export market has declined sharply. In fact the Handloom Export Promotion Council estimates that for 1974-75 exports are declining by a third compared to the 1973-74 exports. To some extent this decline is due to the fall in international prices for handloom goods and a rise in Indian handloom goods prices. The difference is as much as 60 per cent. Further last year's stocks have saturated the export market, reducing the year's demand. There was also the usual unethical element, whereby some exporters in order to beat the credit squeeze and the cut in the cash incentive, rushed large consignments abroad in fictitious names and these stocks are sitting in the air-ports and are being unloaded at any price that is offered. These low priced goods have aroused suspicion of quality on the part of the foreign buyers. A second factor has been that with the withdrawal of the cash incentive scheme from September 30, the alternative of subsidised yarn prices has not been worked out. The sums due to the producers under the scheme running into very large figures have not been settled and are causing further hardship to the producers. Further with the fall in yarn prices, the need for subsidised prices is in question. A third factor is the credit squeeze which comes on top of the accumulation of thousands of bales of handloom cloth which blocks tens of lakhs of rupees. Attempts are being made by the Handicrafts and Handlooms Export Corporation to sell these stocks in the domestic market, with special incentives and discounts, without too much success. There is also a proposal to set up a separate Handloom Export Corporation for the State to canalise the handloom production for export, provide a 2 per cent sales tax drawback and make available yarn to its members at low prices as the TNTC does to handloom weavers. Finally there is a particular problem with the large stock of Real Madras Handkerchiefs valued at Rs. 80 lakhs which was shipped from Madras to Nigeria in August and which was held up in Bombay because it contained smuggled goods. This delay has involved a financial squeeze on the exporters. Action now needs to be taken to help the exporters overcome these short term problems so that handloom exports may once more play their role in the country's exports.

Leather:

Further to the report in the last issue Vol. IV page 689, the fall in the exports of EI leathers between April and October 1974 was 48 per cent in quantity and 44 per cent in value. EI leathers' export declined from 371 lakh kg last year to 174 lakh kg and in value from Rs. 10 lakhs to Rs. 6.4 lakhs. Exports cow hides and

buffalo hides from 53 lakh kgs to 33 lakh kgs and from Rs. 9.7 crores to Rs. 5.7 crores. The basic reason for this slump is transitional—the decision to ban raw leather exports and switch over to semi finished and finished leather and leather goods exports, which takes time to catch on. But this means that the government should set up the Leather Development Corporation immediately and ensure the use of the Leather Development Fund for the creation of the infrastructure to promote the leather goods industry. The other retarding factors can then be corrected, such as the competition from Pakistan, China, Latin America and South Africa and the higher price of Indian leather in foreign markets, which is due to higher import and excise duties. In November trading in the Madras skins and hides market declined, due to a fall in demand with a fall in their prices. But this seasonal weakness can be corrected as the leather industry in the State develops. Here the suggestion of the State Government for a joint Union Government-State Sector operation to develop the leather industry in the State on the basis of identified export markets and the production of quality goods to meet the demand in these markets should be pursued and acted upon.

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IV. Education, Science and Health

Unrest in Educational Institutions :

In November, of the 12 reported incidents of unrest in educational institutions, 9 were located in this State, two of them arising from a fight between students and State transport workers over student travelling, three as a result of differences between students and the Principal, two over disagreements between restaurants and students and two over student union differences. All these incidents led to the closing of the colleges in the 3 centres —Annamalainagar, Madras and Tirunelveli from periods ranging from 2 weaks to 6 weeks. The other three incidents resulted from agitation against rising prices in one case, attacking the principal in the second, and agitation at a convocation over lack of employment and changes in the convocation rules in the third. As the December examination season approaches the unsettlement in the institutions is gathering momentum.

Educational Reform :

One of the major issues in the movement underway in Bihar and other States led by Jaya Prakash Narayan is with regard to urgent need for reform of the education system demanded by the thinking part of the students and teaching community. Towards the end of November the reformed educational programme presented by Dr. V. V. John on behalf of the Committee to meet this facet of J.P's movement was published. The programme aims at transforming education into: (a) An instrument of social change, (b) and national development, (c) a mass based movement (d) a means of releasing

the productive capacity of the people and helping them to participate in nation building. It proposes a war footing change in the system by, (1) using one half to one third of the working time in all educational institutions at all stages to programmes of social service and national development, (2) transforming the present formal system with its single point entry, sequential promotions, full time instructions and teachers by the introduction of a non formal element with multiple entry, part time and correspondence education and self study programmes and by throwing open all examinations to private candidates, (3) encouraging part time teachers and students to engage in teaching as part of the self education process, (4) a 10 year adult education anti-illiteracy programme built around creative self awareness, citizenship, family planning and upgrading vocational skills, (5) a 6 hour week non formal education to all 15-25 out of school youth, (6) universalisation of elementary education in 10 years, (7) the promotion of neighbourhood schools concept, control over opening of new secondary schools, colleges and universities, qualitative improvement, delinking university degrees from employment and diversion of students into work at various stages, (8) provision of additional resources and redeployment of existing funds and (9) a national incomes—wages—price policy and an ethical atmosphere and value system to govern both students and teachers. This excellent reform proposal parallels the major decisions of the 36th session of the Central Advisory Board of Education which met a fortnight earlier and decided : (a) to request the Union and the State Governments to examine their plan and non-plan allocations to drop all irrelevant and outdated projects and redeploy the existing resources on priorities, (b) to introduce non-formal education into all stages of education and give it priority in financing and so meet the national objective of universalising primary education, abolishing illiteracy and making education work oriented and (c) delinking university degrees from Union Government jobs and in place Class I and Class II officers to be selected at the high school stages and prepared for their future vocations through appropriate higher education courses. In between, the meeting of the All India Federation of Primary Teachers, in mid November, in Delhi decided to launch a campaign for the universalisation of primary education through (a) door-to-door canvassing to make parents conscious of educational values, (b) displaying publicity slogans and symbols on the utility of education in all public places, (c) making the school, community based and more attractive, (d) replacing the examination system by a system of assessment and (e) introducing non-formal education for dropouts. A fourth event was the All India Convention of college teachers on democratisation of the governance of universities and colleges meeting at the end of November in Madras which recommended greater elected representation of teachers, students and non-teaching staff in all governing bodies and legislative control over education as a step towards nationalisation of all educational institutions. (In the Indian setting today this would mean more rigid uniformity and beaurocracy). It also demanded that new UGC scales of pay for Central Universities should apply to all colleges and universities in all States — (which will widen the disparity between primary teachers salaries and those in higher education institutions). On Examination reform the Central Boards of Elementary and Secondary Education have recommended dropping the pass/failed system and replacing it by subjectwise grading in elementary and a five point scale from " excellent to poor " grading in secondary education. This system will apply

immediately to 900 primary and 500 secondary schools which are run by the Union Government and will deliver their students from the tyranny of the examination system. The State Public Service Commission's meeting in Delhi in late November have also recommended that the Union Commission should organise national merit examinations in various disciplines to overcome some of the defects of the present system and enable students to get jobs quickly. NCERT is widening its science talent scheme into a National Talent Scheme to identify and provide Scholarships to talented students not only in science but also in engineering, medicine, humanities and the social sciences. These proposals for educational reform contain all that is necessary for effecting the urgently needed change and now it is the political will and community support that is required to make the restructuration, for which the time is fast ending. In this State, the Board of Continuing Education is undertaking a Survey of non-formal education and launching a project for the dropouts from class 8. Also the scheme of assessing the pupil's total personality now being experimented in some schools (see Vol IV pages 555–556) is from the next school year to be made compulsory in 250 high schools. School Science exhibitions in the State are multiplying and the November one involved participition of 9 primary and middle schools and 12 high schools to which the refresher training of teachers is an added quality improvement. The Madras University will be adopting the semester system in all M.Sc. courses from next year, has recognised post graduate research at the College of Physical Education, has started diploma courses in marketing insurance and foreign exchange, a B.A, course in corporate secretaryship in the Presidency College and Bachelor of Technical Education in the Regional Technical Teachers' Training College.

Technical Education :

The Tamil Nadu Board of Technical Education has recommended to the Government an increase in admissions to the engineering colleges from the present 1,290 to 1,525 in light of the increasing future needs for engineers. The first reduction to 1,000 was made in 1968-69 which was raised to 1,290 this academic year. The Board also decided to continue with the English medium in Polytechnics and Engineering colleges until the experience of teaching 2 subjects in Tamil at the Nachimuthu Polytechnic, Pollachi and the Government Poletechnic, Tiruchy has been evaluated. The Board has launched a text book pragramme (36 titles) for polytechnics to avoid reliance on notes, opened women's sections in Polytechnics starting with the Tiruchy Polytechnic to increase facilities for Women, provided autonomy to selected Polytechnics, introduced the question bank system and introduced TV Engineering at the Central Polytechnic, Madras, knitting technology at Coimbatore, tannery at the Institute of Leather Technology, Madras, operations research at Guindy Engineering College, micro–wave communications in Women's Polytechnic, Madras and converted the fishing technology course at the Central Polytechnic into a sandwich course. On medical education the Union Government has decided to drop the plan for a Medical Education Commission (See Vol. IV page 382) and instead has decided to set up a group of experts to draw up a curriculam to train health assistants, which is a new cadre between the doctors and the multi purpose rural workers, to man the 6,000 primary health centres in the Country. They would form the highest echelons in the para medical cadre and will be attached to PHCs after 2 years' training in treating common ailments, servicing nutrition and national health service programme. This conforms to the

Health Plan of this State (See Vol. II No. 9 page 33) and will meet a crying need for medical attention in the rural areas.

Science :

An important R & D initiative in the Country is the decision announced by the chairman of Tata Chemicals to establish in New Delhi, the Tata Energy Research Institute with Rs. 1 crore seed capital to (a) help in conserving and making more efficient and less polluting the existing sources of energies—coal, petroleum and atomic, and (b) develop new resources, particularly non polluting and non depleting sources—wind, tides, waterflows, geophysical heat etc.—on an economic and viable basis. This is a path breaking effort and must be supported by the government as it will require in time hundreds of crores of rupees. CSIR estimates for the Fifth Plan that electronic and telecommunications equipment production will atleast be Rs. 3,000 crores, calling for an investment of Rs. 350 crores and an R & D of Rs. 88 crores. The relationship between these figures shows the high pay off in production, employment and exports of R & D in this field. On the manpower side, the Electronics Commission is working out the number of scientists and engineers needed and is drawing up a scheme of incentives for the return of electronics and telecommunications scientists now working abroad. ECIL has on its side completed production of two third generation computers at a cost of Rs. 85 lakhs for the use by the fast breeder test reactor at Kalpakkam from March. Further BHEL is co-ordinating the project reports on the seamless steel tube plant (See Vol. IV page 596) and the rigs for ONGC on the basis of R & D results of the Commission's projects. MERADO, Madras completed in November the field testing of an improved hand pump for use in community wells. In this heavy drought areas in this State, the pump which can lift water from 200 feet will be useful. Agricultural research will be helped by the 3 tier organisation of ICAR—a general body at the top, a governing body bringing in the ministries, Planning Commission and UGC and a decentralised management committee for each institute and seven scientific and regional panels, (See Vol IV page 44). In view of the rubber shortage a strong plea is made by the Rubber Board to increase R & D in rubber technology. In this State, the agricultural research done by the State group and the TN—Agricultural University is still not integrated and co-ordinated under one body. This should be done without further delay.

Health :

The Department of Health reports that up to mid November 80,000 sterilisation operations have been performed this year. Madras Corporation prepared to launch from December 1, a three week vasectomy camp. The operations were to be performed at Government Stanley Hospital and each person undergoing the operation should be given one week's leave, 3 days after care treatment at the Corporation Community Centre, the usual Rs. 60 incentive and, what is most attractive these days, 2 measures of rice. Kerala reports that it has achieved the fifth plan birth rate target of 31 per thousand. Till the end of September its sterilisation operations since the start of the programme amounted to 7.3 lakhs compared to Tamil Nadu's 17 lakhs. Kerala's institutions offering facilities for medical termination of pregnancies have been increased from 11 to 52. One of the heartening features of the Kerala programme is that it is supported by Trade Unions, Voluntary organisations, government departments and management agencies very widely.

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V. Employment

In regard to the dispute between the mill owners and trade unions in Coimbatore over the bonus payment, referred to in the last issue (Vol. IV page 693) after long and hard negotiations aided by the Chief Minister and Labour Minister an agreement was reached on November 11, 3 days after the workers non-co-operation programme started. Under the agreement an interim bonus was paid for 1973 at the same rate as for 1972, and Deepavali an advance to each worker equal to 10 per cent of his earnings during 1972–73 which will be adjusted according to the decision of the Chief Minister and Labour Minister to be made in April 1975. As a result of this agreement 55,000 workers in 65 mills received Rs. 3 crores out of the Rs. 4.5 crores which are to be distributed among them. Questions of minimum wages in the unorganised sector were discussed at a national seminar in Madras, in mid November. Here the term unorganised sector is limited to workers in the beedi, cashew and plantation industries, wherein a joint Commission of representatives of employers, employees and legislators have been set up by the State Government to study and recommend not only the wages in these three categories but also the housing, medical and educational benefits for the workers and the possibility of establishing a uniform minimum wage for all the States in consultation with the Union Government. The Union Government is undertaking the third industrial wage survey covering 81 industries employing 85 per cent of workers in the manufacturing sector in order to construct an index number of wages and record reliable information on wages. On the question of conditions of work, at a national seminar in Madras at the end of November on industrial safety, it was noted that the total number of accidents in factories averaged a high 2.5 lakhs each year, with 668 deaths from such accidents in 1973. Until 1971 the accident rate was 23 per one lakh man-days and has since averaged 27 per lakh working days. This poor record is due to safety not being a major concern of management and the solution lies in making it the Planning Commission's policy, a part of management's major responsibility, ensuring co-ordination among the multi disciplinary bodies engaged in safety and health, making it a part of all engineering education and eliminating all hazardous conditions and practices with a strengthened factory inspectorate. In addition there is need for a wide programme of education and propaganda to promote safety and good health. On the employment generation side, one negative element is the 50 per cent reduction in the crash programme for rural employment in the State due to the loss of revenue resulting from Prohibition. But the crash programme has come in for severe criticism from the Comptroller and Auditor General (See Vol IV pages 601-602). In one neighbouring State his report refers to disturbing facts that there was not one single instruction from the Union Government which was not thoroughly violated—such as authorising schemes which were not approved by the Union Government, operating 109 schemes under Rs. 5,000 each, spending money on Kutcha roads instead of on tanks and irrigations works, operating a muster roll while in fact there were only 23–50 per cent of workers of those who are supposed to have been on the rolls, total neglect of backward areas, leaving Rs. 21 lakhs works unfinished, giving out contracts to contractors who did shoddy work, putting on the programme account works which were started or completed before the programme, digging wells

without ground water surveys and starting projects without studies, paying wages as low as 0.62 paise against the instructions to pay Rs. 4 per day and so on. This story of slackness, nepotism, and corruption characterising the crash programme is a commentry on our character as a people in the sense that a perfectly good and needed programme is distorted and misused by us. The Ministry of Labour reports that employment in the organised sector in 1973 increased by 1.3 per cent (against the 3 per cent increase in 1972) to 19.12 million workers. In public sector it increased by one per cent in December 1973 compared to 6.5 per cent in September 1973, while in the private sector it increased from 2.9 per cent compared to the previous 1.8 per cent. Tamil Nadu and the South generally did poorly with only 0.6 per cent increase. The number of workers on the live registers of the employment exchanges looking for work was 82.18 lakhs in December 1973, up by 0.3 per cent over September 1973. On the other hand to provide employment to some 2 lakhs ex-service men in North Arcot, Ramanathpuram and Tirunelveli districts and another 25,000 who will be joining them during the Fifth Plan, the State Government is establishing a Goods Transport Corporation with 100 lorries to provide them with employment and is allocating 40 acres in Thanjavur, North Arcot and Nilgiris districts to build HUDCO financed houses for them. In addition a part of the Union government provision of Rs. 3 crores will be used to enable ex-service men to secure industrial licences, prepare project reports and conduct market surveys before launching self employment projects. The syndicate bank reported in November that of 454 applicants, 283 educated unemployed had been selected for self employment schemes for which the bank advanced Rs. 85 lakhs, 135 of them are in small scale industries, 70 in trade, 48 in poultry and dairy farming and 3 in each transport and medical service. The programme is being intensified with regard to unemployed matriculation and technically qualified youths in starting trades and small units of their choice. CSIR reports that 19,760 scientists living abroad have registered themselves in the national register, with scientists being 40 per cent, engineers 40 per cent and medical personnel 20 per cent. 44 per cent of new entrants went to U.S., 30 per cent to U.K., 6 per cent to Germany and 4 per cent to Canada. The scientist pool has 10,350 persons at June 30, 1974, 36 per cent scientists, 35 per cent engineers, 27.3 per cent medical personnel and 1.5 per cent social scientists. Of the scientists being invited by the package scheme (See Vol. IV pages 452–453) only 22 persons have made enquiries as at the end of November. The JN Technical University, Hyderabad in collaboration with IAMR, New Delhi, is undertaking a research survey of industry's manpower requirements, covering all skills needed in the context of changing technologies and conditions. The results of the survey should help the technical education programme in the Fifth Plan to be more need-based.

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VI. Other Items

Indian Economic Conference :

The Conference issue of the Indian Economic Journal containing the 34 papers (one key paper received in mid November), the review of each section by the Chairman-Rapporteur and the editorial in the form of an over view by the President was mailed to all members of the Association on 4 December. In addition to Prof. Frank Hahn (Cambridge), Mrs. S. Hahn (Cambridge), Prof. George Skorov (Moscow), Prof. W. B. Reddaway (Oxford) are attending the Annual Conference and the Seminar. It has also been decided to revert to the previous practice of holding the Annual Conference of the Indian Labour Economics Associations at the same time and place. Hence at the inaugural session, Dr. Malcolm S. Adiseshiah will deliver the Presidential Address of the Economic Conference and Dr. Sukumy Chakravathy the Presidential Address of the labour conferenee. On the second evening, there will be a special current topic symposium led by professors Brahmananda (Bombay) and Alok Ghosh (Calcutta) on the subject, 'Are there recessionary trends in the Indian Economy ?'

Second India Series :

Five Studies on the Indian Economy, Food Supplies, Transportation, Communication and Indian Industry in the year 2001 AD. when the second 500 million Indians would have come into existence were prepared by the Tata Economic Consultancy Services, and by Prof. V.M. Rao in the case of food supplies. The most outstanding futuristic study was that on the Indian economy, followed by that on the Indian industry and food supplies. These studies were reviewed at a seminar in Bombay on November 2 & 3 by a group of 20 economists and administrators. It was seen that the eradication of poverty will involve a long, hard and sustained effort on the basis of the Present structures, call for far reaching structural changes, require absolute priority being given in investments and skilled talent to food grains and wage goods production and some restraints on capital goods production. It was a sobering exercise to look into the near future for this vast country.

CABE :

As noted in the Education section, the 36th meeting of the Central Advisory Board of Education met in Vigyan Bhavan New Delhi on November 4 and 5. It met in the context of the economic crisis through which the country is passing and against the background of the basic questions of mortality and civilized living being posed by Jaya Prakash Narayan. On the top, the plan allocation of education has been continuously cut from Rs. 3,200 to start (See Vol. II No. 11 page 32) to Rs. 2,200 crores (See Vol. III (pages 364 & 510) now reduced to some Rs. 1,700 crores, with the prospects of further cuts. The Prime Minister opened the Board Meeting and her presence, more than what she said, was to the members a political guarantee that the education ministers and educators could go forward with the urgently needed educational reform and restructuration for the Country. There was the natural regret recorded at the diminishing finances available. For the first year of the Fifth Plan, the plan allocation was the same as that of the last year of the Fourth Plan of Rs. 180 crores. It is likely that the second year will be about the same level. This is background against which the decision to turn to non-formal education

to remedy and revive our education should be seen.

Indian Adult Education Association:

The twenty seventh Annual Conference of the Indian Adult Education Association was held at Literacy House, Lucknow from November 3-6 on the theme, Adult Education in the service of the rural poor. The conference divided itself into four sections and examined the reports of the State Associations on the questions of functional literacy for farmers, problems of land reform and structure, literacy materials and teaching and training techniques. It adopted a statement committing the Association to harnessing adult education in the battle against poverty. For the years 1975 and 1976, it elected as its President Dr. Malcolm S. Adiseshiah, and as its general secretary Mr. S. C. Dutta and the Council and Executive Committee of the Association. Dr. Mohan Singh Mehta, the retiring President was felicitated for all that he had done during the 16 years of his presideney and was hailed as one of the two founding fathers of Indian Adult Education. The President presented the programme of work and study for 1975 around the various forms of non formal education and the programme comprising a National workshop on Education of school drop outs to be organised by the Bombay Social Education Committee in March, a national symposium on non-formal education for the 15-25 age group to be organised by the Mysore Adult Education Committee in June, and a one week national training course on production of problem oriented literacy materials to be organised by the Rajasthan Adult Education Association in July. The twenty eighth Annual Conference is to be held in Jubbalpore. The Regional Council of Adult Education Madras opened its 11th Adult Education centre at Annanagar, Madras and used the the occasion to felicitate the new President of the Association.

National Conference of Catholic Women:

The Fourth Annual Conference of the National Council of Catholic Women of India was held in Bombay from November 7-10 on the theme, Population, our concern. In recognition of the UN decision about this year being the Population year, the Conference faced squarely the population problem in this Country, and examined all its dimensions—economic, social, cultural and moral. There was an extremely serious examination of the methods to achieve and propagate the small family norm in the Country and a decision to continue the programme of education and action sparked by the conference.

Board of Continuing Education:

The Board of Continuing Education, Madras, held two meetings on the 9th and 22nd November to plan the launching of its first project—education of drop-outs from class 8 and some from class 5. It decided that a part of the trainees should be girl drop-outs who would be given the similar 2 year course as that of the men to bring them upto the employment oriented ESLC level. At the second meeting on November 22, the request of the State Government of the board to undertake a survey and assessment of non-formal education and training programmes in the State with recommendations for their change and extension was taken up. A format for the survey was established together with a prototype questionnaire and the Departments of Agriculture, Animal Husbandry, fisheries, labour and employment, education, health and family planning and all the voluntary

agencies present agreed to conduct the survey starting on December 1. The results will be sent by February 28 to the member Secretary, Mr. Venkata Subramanian, Joint Director of Education, who with the President will establish the report in March, submit it to the Board and Government and all those operating the programmes in April 1975.

Vivekananda College :

Vivekananda College which has an active research programme in the Department of Chemistry, is now planning to develop research activities in Mathematics, Botany, Philosophy, Sanskrit and Economics. In response to its application to the Board of Direct Taxes for tax exemption for contributions made by its research programmes, a visiting committee examined its research plans and programmes in the five disciplines and made its recommendations to the College and the Board.

Fourth Meeting of Heads of Social Science Departments

The Fourth Meeting of the Heads of Departments of Social Sciences of the Southern Universities was held on December 7 and 8 by the Madras Institute of Development Studies in co-operation with the ICSSR Southern Regional Centre.

Members present : Dr. M. Abel, Prof. & Head of the Dept. of Political Science, Madras Christian College. Dr. R. V. K. Chandrasekhara Rao, Prof. & Head of the Dept. of Politics and Public Administration, Andhra University. Dr. K. H. Chelauva Raju, Prof. & Head of the Dept. of Political Science, Bangalore University. Miss Gajalakshmi, Prof.-in-charge, Dept. of Economics, Madurai University. Dr. Gopala Sarana, Prof. & Head of the Dept. of Anthropology, Karnatak University. Dr. C. T. Kurien, Prof. & Head of the Dept. of Economics, Madras Christian College. Dr. G. Mathur, Prof. & Head of the Dept. of Economics, Osmania University. Dr. Mohammed Mohsin, Prof. & Head of the Dept. of Commerce, University of Calicut. Dr. D. L. Narayana, Prof. & Head of the Dept. of Economics. Sri Venkateswara University College, Dr. E. G. Parameswaran, Prof. & Head of the Dept. of Psychology, Osmania University. Dr. C. Parvathamma, Prof. & Head of the Dept. of P. G. Studies and Research in Sociology, University of Mysore. Dr. M. V. Pylee, University Prof. of Management, School of Management, University of Cochin. Dr. A. Ramaswamy, Prof. & Head of the Dept. of Economics, Annamalai University. Dr. Rama Reddy, Director ICSSR Southern Regional Centre. Dr. B. Sarveswara Rao, Prof. & Head of the Dept. of Economics, Andhra University. Dr. T. E. Shanmugam, Prof. & Head of Psychology, University of Madras. Pro. R. Subramaniam, Head of the Dept. of Research, The Gandhigram Rural Institute. Dr. M. Subramanian, Prof. of Ancient History, Madurai University. Dr. C B. Tighadi, Prof. & Head of the Dept. of Economics, Karnatak University. Mr. J. P. Naik, Member Secretary ICSSR. Dr. Malcolm S. Adiseshiah, Director, Madras Institute of Development Studies.

(2) *Agenda* : The following Agenda was adopted :

1. Approval of draft agenda—Doc-IV SS/1.

2. Progress and problems of Social Science Research and teaching in the Universities—Doc-IV SS/2—(1)—(XIX)
3. Follow-up of last year's decisions on the ICSSR Review Committee's report (Doc—IV SS/3—(I)—(III)
4. Progress of post M.A, course on Research Methodology (Doc—IV SS/4 (I—IX)
5. An interdisciplinary research methodology seminar in May 1975—A note by Dr. Malcolm S. Adiseshiah (Doc—IV.SS/5.)
6. Work on Production of text books —(Doc—IV SS/6 (I—IX)
7. Approval of record and decisions Doc—IV SS/7

(3) *Progress and Problems of Teaching and Reseasch* : On the basis of the documents presented by Dr. A. Ramaswami (Economics, Annamalai) Miss Gajalakshmi (Economics, Madurai) Dr. Shanmugam (Psychology, Madras) Prof. Subramaniyan (Research, Gandhigram), Dr. Parvathmma (Sociology, Mysore), Dr. Parmeswaran (Psychology, Hyderabad), Dr. Kurien (Economics, Tambaram), Dr. Pylee (Management, Cochin), Dr. Subramaniyan (History, Madurai), Dr. Narayana (Economics, Tirupathi), Dr. Abel (Political Science, Tambaram), Dr. Tighadi (Economics, Dharwar), Dr. Mohsin (Commerce, Calicut), R. Ram Reddy (Political Science, Hyderabad), Dr. Chelauvu Raju (Political Science, Bangalore) and presentations by Dr. Mathur (Economics, Hyderabad), Dr. Sarveswara Rao (Economics, Waltair), Dr. Sarana (Anthropology, Dharwar), and Dr. Chandrasekhara Rao (Political Science, Waltair), the following issues were raised and conclusions arrived at, with regard to teaching and research in the Social Sciences in the Southern Universities.

The issues faced in the teaching of the Social Sciences in the Southern Universities involve :

(1) The language problem ; Students normally complete their schools in the language and some also use the regional language for their B A. course. There is a serious problem of transition to English in the case of the M.A. courses. Osmania University now uses an entrance test in English medium as a condition for admission to the M.A., a procedure which might be of interest to other universities.

(2) The large numbers : The M.A. classes are swelling rapidly in one case to over 70 students, in a second case to 150 and a third case to 200 students. This rush for M.A. is partly due to the pressure of larger graduations, the coming up of the rural students, and the teaching employment prospects for M.As. The possibility of restricting admissions or breaking up the group into smaller groups needs further exploration.

(3) Teaching improvements : A good deal of the corpus of Theory in the Social Sciences is inappropriate to conditions in the Country. Awaiting the time when theory text books from the Indian Context can be developed, a number of universities are supplementing their courses required for the degree by field surveys which are discussed with experts and administrators project work for M.A. students, organising current topics, review and discussion on the basis of newspaper readings and linking seminars with field work.

(4) Scarcity of Teaching Staff: The departments face a quantitative and qualitative scarcity of teaching staff, with the result that there is an increasing number of vacancies at the level of lecturers and readers. The teaching and research programmes must take account of these facts.

(5) Curriculam Revision: The possibilities of revising the curriculam, updating it and making it more responsive to the changing situation in the country seems to vary as between the universities. In some cases the necessary changes and revisions are undertaken somewhat expeditiously but in others the time period involved is overly long. There should be a more expeditious procedure for dealing with curriculam changes.

(6) Teaching Quality: The trend towards a lower level of teaching, lack of methodological background and difficulties in dealing with the latest development in the sciences were referred to. In some cases, there is a wide margin between the number of optionals prescribed in the syllabus and the limited number of optionals offered to the students. It is necessary for the UGC to finance every year Refresher Courses for teachers in the Social Sciences, particularly from the affiliated colleges to overcome some of the problems.

The issues faced in Social Science Research in the University covered the following:

(1) Declining quality of research scholars. First class M·As. move directly into the teaching profession so that it is the second level of students who take up research and apply for scholarships. Even these move out without completing their research when an employment opportunity comes up. There are non academic factors operating in the selection of research scholars and in many cases the heads of departments and professors are unable to control the admission of the students into the research degrees. It was suggested that in addition to selecting the best students for full time research, ensuring the UGC fellowships are available to each department, the research grant possibilities offered by the ICSSR for teachers to do their Ph.D. work should be more fully used. Lecturers in PG departments might be required to obtain their Ph.D. in five years. In time there might be a larger number of part time Ph.D. scholars calling for a reorganisation of the time period for research and methods of supervision. Also those working on ICSSR and other research projects might be encouraged to take on the research degree programme.

(2) Assistance to Research Professors: Except one university, there is no provision for research assistants and small funds needed by the professor for research. The heavy teaching load varying in most cases from 10 to 16 hours makes research difficult. It is recommended that universities and ICSSR should urge UGC not to duplicate the research grant programmes of ICSSR, but make to each social science department an unassigned research grant to be used by the head of the department in consultation with the Vice-Chancellor for a research assistant, books and equipment, stenographer etc. as needed.

(3) Infrastructures: The younger universities and the new departments in the older universities face problems of the lack of back numbers of journals, adequate libraries and books. The regional centre of ICSSR might begin storing back numbers of journals for some of the disciplines. The prospects for ICSSR financing infrastructural facilities of the Fifth Plan are rather limited.

(4) Other problems: Due to shortage of staff, the research guide is often made to supervise research scholars outside his specialisations. Some departments are hampered by lack of original sources for their research. All face a serious problem of limited finances. The administrative procedures in release of research funds in

some of the universities are time consuming. There is need for sabbatical leave provisions for the staff.

In light of the above it was recommended that:

(1) efforts should be made to induce UGC to make unassigned research grant to each social science department. To do this (i) the ICSSR Member-Secretary should take up this matter with the UGC, South Indian Universities (ii) the Director of the Institute should address a communication to the Vice-Chancellors of South Indian Universities and (iii) the Heads of Departments should take up this matter with their Vice-Chancellor.

(2) the ICSSR regional centre should sponsor a programme of studies of teaching and research in the social sciences in the Southern Universities, starting with Economics with the help of Dr. Mathur and Dr. Kurien, and Psychology with the help of Dr. Parameswaran and Dr. Shanmugam during the coming year. The studies might be reviewed at the next meeting of the heads of departments.

(3) The regional centre of ICSSR might prepare a brochure on the research specialisations available in the social science department in the 17 southern universities, starting with the departments of political science. This document might be used at the next meeting of the heads of departments to consider the possibility of collaboration in political science research as between different southern universities.

(4) *1975 Interdisciplinary Research Methodology Workshop.* Dr. Malcolm S. Adiseshiah introduced document IV SS/5 (1). He recalled that the interdisciplinary research methodology seminar in April 1974, the fourth in the series of methodology workshops, was the first in bringing together 8 social science disciplines around the methodological problems involved in research on poverty. In a tentative assessment of its results, two groups of results may be identified. The first group is methodological and here not much progress was made. There was the familiarising with the methodologies used by the various disciplines but even here there was a greater interest in the poverty analysis than in an analytical discussion of the methodology used. There was also some merging of concepts and conceptual frames as when the economists' definition of poverty was accepted, the sociologists', psychologists' and historians' analysis of the causes of poverty was accepted and the research purposes set forth by these disciplines and those of geographers, political scientists and educators were adopted. The negative conclusion reached was the projection of a traditional undisciplinary research approach. There was however, no discussion or agreement on what inter disciplinary research methodology is or what are the next steps involved in its development. The second group of results relate to research on poverty and here there was substantial progress as recorded in the declaration adopted at the Seminar whose paragraphs 2-6 should be studied and acted upon.

The problem of inter disciplinary research arises from the fact that the traditional boundaries of the disciplines do not coincide with the real problems faced by the country e.g. poverty, unemployment, regional planning, population control etc. Beyond the use of the methods and concepts of the different discipline used in planning and problem diagnosis, there is need for transforming the parameters in each discipline into dependent variables. The long term aim should be the development of new specialisms with their own concepts and methods. The immediate task is to use existing concepts and models but change and modify

their content in accordance with our conditions and problems. Interdisciplinarity would then require such simple things as our reading each other's publications and being alive to the limits of our own techniques. The ICSSR could give grants to scholars who wish to take time off to read and understand literature outside their fields.

For the 1975 workshop the following were proposed :

Theme : Research in Regional Planning with special reference to the attack against poverty: methodological issues. The theme would cover the methodological issues involved in the different discipline in micro level planning aimed at raising the living levels of the local people living in poverty.

Purpose : The purpose of the workshop would be (1) to carry forward the discussion of inter disciplinary research methodology with a view to producing some definition of its content, techniques and frame, (2) the development of an interdisciplinary research programme on regional planning and poverty and (3) issue a publication setting forth the methodological issues raised in the last seminar and this workshop.

Time and Place : Sunday May 4th to Sunday May 11th, 1975 inclusive of both days, Mysore University.

Director : Dr. Parvatamma, Professor and head of the Dept. of Sociology, Mysore University.

Guidelines : The guidelines for preparing the papers for the workshop will be established by the Director of the workshop in consultation with other departments' heads in Mysore and Bangalore by the middle of January 1975.

Papers : Papers will be written by specialists from the Southern Universities covering Geography, Economics, Sociology, Psychology, History, Political Science, Management, Anthropology, Statistics and Education. The Director of the Institute and the Director of the workshop will invite the specialists to write the papers on the basis of the guidelines and in consultation with one another. Each writer will be requested to include a guide for reading at the end of the paper.

Participants : Thirty Social Scientists from the 17 Universities will be invited as members of the workshop. The heads of departments are invited to communicate to the Director of the Institute the names of Readers and Lecturers who in their opinion are qualified to participate in the workshop :

Resource Personnel : Four among the following specialists may be invited to assist the workshop as resource persons. Prof. V. S. Vyas, I.I.M. Ahmedabad or Mr. Hanumantha Rao, Institute of Economic Growth, Delhi, Mr. Ravi Mathai, I.I.M. Ahmedabad, or Dr. Kamla Chowdri, Ford Foundation, New Delhi, Mr. P. C. Joshi, Institute of Economic Growth, Delhi, Prof. V. P. Sharma I.I.M., Calcutta, Professors Muniz Raza, L. S. Bhatt and K. Seshadri of JNU, New Delhi and Mr. B. S. Minhas.

Methods of Work : One day each will be given to the exposition and discussion of the methodological issues issues involved in Geography, Economics and Sociology, one half day each to those involved in the other 6 disciplines and the last day used for arriving at conclusions on methodology and research proposal on the theme. Each discipline will produce some conclusions on the discussion at the end of the day or half day.

Administration : With the grant from the ICSSR received through the Southern Regional Centre, the rules of the Institute as applied in the last seminar will be followed for the workshop.

It was also agreed that a specialist working on a project might apply and receive a grant from the ICSSR for undertaking study and reading outside his discipline.

(5) *Progress of post M.A. course on Research Methodology* The documents on the above subjects setting forth the progress in introducing methodology courses in Ph.D. programmes were presented by Dr. T. E. Shanmugam, Psychology, Madras, Prof R. Subramanian, Research, Gandhigram, Dr. Parameswaran, Psychology, Hyderabad, Dr. Narayana Economics, Tirupathi, Dr. Mohsin, Commerce, Calicut, Dr. Chandrasekhar Rao, Political Science, Waltair, Dr. Sarveswara Rao, Economics, Waltair and others orally. Four conclusions emerged from the discussion :

(1) It is necessary that all Ph.D. programmes have an examination or test in methodology. This is the case in all departments except a few which should adopt this practice.

(2) It is necessary that organised instruction be offered in each department for the above course. Only Osmania University, Calicut University and the Psychology department, Madras University have such course.

(3) There is a problem of expert staffing for the above course. It is recommended that Reader's post be established in each department to provide the staff needed. Also a compendium of readers and research methodology should be prepared by each department.

(4) The content and syllabus of research methodology courses needs further study and examination to ensure an adequate balance between methods, techniques and substantive problems. In this connection two decisions were made :

(a) the ICSSR Southern Regional Centre might prepare a syllabus for a research methodology course in political science.

(b) the next meeting of heads of departments should concentrate on this part of the Agenda on the syllabus for research methodology courses, using the political science document as the point of discussion.

(6) *Follow-up of last year's decision on the ICSSR Review Committee's Report* After a discussion of last year's decisions on the ICSSR Review committee's report, it was decided that :

(1) the southern regional centre of ICSSR should execute last year's decision to set up small, inter-disciplinary research cells in Mysore and Andhra University.

(2) ICSSR is urged to set up disciplinary panels to update its completed work on trends in research. The pros and cons of widening their responsibilities to advise on project approvals, research fellowships and publication grants were also discussed.

(3) the quarterly Newsletter of the southern regional centre of ICSSR was welcomed and it was suggested that it should have a section called Research Notes where information on disciplinary and inter-disciplinary research activities in the southern region could be reported regularly by the departments.

(4) It was noted that financial limitations are seriously hampering the follow-up of the Report, particularly with regard to the priority research projects. To conserve these projects, the other

activities of the Council will have to be restricted.

7. *Work on production of text books*: The Seven papers on text books by Dr. Ramaswamy, Economics, Annamalai, Dr. Parameswaran, Psychology, Hyderabad, Dr. N. Subramanian, Ancient History, Madurai, Dr. Narayana, Economics, Tiru. pati, De. Tighadi, Economics, Dharwar, Dr. Ram Reddy, Political Science, Hyderabad, Dr. Mathur, Economics, Hyderabad, Dr. Sarveswara Rao, Economics, Waltair and Dr. Chandrasekhara Rao, Political Science, Waltair, together with oral presentations by Dr. Pylee, Mangement, Cochin and Dr. Parvathamma, Sociology, Mysore were discussed. The outstanding work in production of Telugu text books for intermediate and B.A. students by the Telugu Academy, using fully the expertise of professors in the three universities was noted with satisfaction. The individual efforts of Dr. Ramaswamy, Dr. Subramanian and the programme of the language Institute Mysore University was also noted. It was once more stressed that the Andhra Pradesh model should be studied by the other universities in other States. The lack of financial provision for production of text books in English was noted and an appeal made to UGC and the Ministry of Education to provide some equivalent resources to meet this urgent need.

Fifth Meeting of the Advisory Committee of MIDS

The Fifth meeting of the Advisory Committee of the Madras Institute of Development Studies was held in the Seminar room of the Institute on Monday, the 9th December 1974 at 11 a.m. with the following members. Mr. N. D. Sundaravadivelu, Chairman, Vice Chancellor, University of Madras; Dr. N. Subramanian, Prof. of Ancient History, University of Madurai; Dr. A. Ramaswami, Prof. & Head of the Dept. of Economics, Annamalai University; Mr. M. N. Rao, Secretary-Partner, Messrs. Seshachalam Book Publishing Co ; Mrs. Elizabeth Adiseshiah, Co-Trustee, Madras Institute of Development Studies; Dr. Malcolm S. Adiseshiah, Director, Madras Institute of Development Studies.

Absent: Dr. V. Shanmugasundaram, Prof. & Head of the Dept. of Economics; Mr. J. P. Naik, Member Secretary, Indian Council of Social Science Research.

2. *Agenda*: The Agenda set forth in document 5 AC/1 was adopted:

(1) Conformation of the minutes of the 14th meeting held on Monday 24th December, 1974 4 AC/6. (2) Approval of the draft agenda 5 AC/1. (3) Review of the 1974 Annual Report of the Institute 5 AC/2. (4) Draft Programme for 1975 5 AC/3. (5) Other business.

3. *Minutes*: The record of recommendations circulated in document 5 AC/6 on 26th December was confirmed.

4. *Review of the 1974 Annual Report*: (See Vol IV page 23). The Director presented the record of work of the Institute in his report for 1974 during which the background factors were the inflationary state of the Economy, the shortage of foodgrains, the threefold rise in the price of petroleum and petroleum products and the continuing power shortage which involved some attention to these issues in the Institute's work programme. The year's programme concentrated on studies on selected agro-rural

problems of the State, the Seminars and meetings, programme, documentation and publication activities and the Southern Region inter-University programme, The Institute maintained and strengthened its relations with the Indian Council of Social Science Research and the other Development Institutes in the region.

(i) *Studies*: The Studies completed during the year were :

(a) Educational problems of the Scheduled Castes and Scheduled Tribes in Tamil Nadu by Prof. S. Ramanathan,

(b) Rural Employment in Tamil Nadu by J. Viswanatha Moorthy and Mr. C. L. Narasimhan,

(c) Women's Welfare in Tamil Nadu by Miss K. G. Rama,

(d) Poverty and Supply of Wage Goods in Tamil Nadu by Mr. M. Ramamurthi.

The continuing Studies are :

(a) Primary Education and Adult Education in Tamil Nadu by Mr. A. Joshua

(b) Unemployment of ITI Graduates in Tamil Nadu by Prof. T. C. Mohan

(c) Economic and Social Status of Small Fishermen in Tamil Nadu by Selvaraj

(d) Educational Profile of Jobs in Tamil Nadu by Ravi Shanker

(e) Relation between Rural Poverty and Rural Under-employment in Tamil Nadu by C. L. Narasimhan

(f) Operational efficiency of Small and Medium Plantations in Tamil Nadu by Meena Kumari

(ii) *Seminars*: The monthly Seminar programme of the Institute as recommended by the 4th meeting of the Committee on the Theme 'Tamil Nadu's Fifth Five Year Plan' was carried out. The Seminars were attended by an average of 15 members. In addition 5 special seminars were held in the Institute organised by various departments of the Government. The Institute in place of the Annual Seminar Conference helped to organise the Annual Seminar of the Indian Economic Association on 'Improvement of the Teaching of Economics' on December 30 and 31 at Andhra University, Waltair.

(iii) *Inter-University Programme*: (a) The 4th meeting of the Heads of Social Science departments of Southern Universities was held on December 7 and 8 at the Institute in co-operation with the Southern Regional Centre of ICSSR. Twenty heads of departments of Economics, Sociology, Political Science, Psychology, History, Management and Anthropology, and the member Secretary of ICSSR participated in the meeting. It reviewed problems of teaching and research and made recommendation to UGC and ICSSR for helping the research efficiency of the department and developing collaboration in their research activities. It reviewed the Methodology courses in the Universities and deeided to concentrate on the Syllabus of these courses at its next meeting. It noted the excellent work of the Andhra Pradesh Universities in the production of Telugu Social Science text books as a model to the other States. It reconfirmed its last year's decisions recommending to ICSSR the starting of inter disciplinary research cells in Mysore and Andhra Universities. It dectded to organise a second inter disciplinary research methodology workshop, the 5th in the series at Mysore University in the first week of May 1975 on the theme 'Research on Regional Planning' with special reference to the attack against poverty.

(b) The first inter disciplinary Research Methodology Workshop, the fourth in the series was organised from April 1-7, 1974 in Osmania University on the poverty problem. It was attended by 35 social scientists including 4 research personnel from outside the region. As the first attempt in inter-disciplinary methodological discussion, it resulted in the Social Scientists familiarising themselves with each other's concepts and techniques, committing themselves to active involvement in the poverty struggle and establishing a long term inter disciplinary programme on investigation of the poverty problem.

(iv) *Publications*. The following publications were undertaken :

(a) The Bulletin was issued every month with the May-June and December issues being special issues.

(b) Plan implementation—Problems and prospects for Tamil Nadu's Fifth Plan by Dr. Malcolm S. Adiseshiah

(c) Educational Problems of Scheduled Castes and Scheduled Tribes (4 volumes) by Prof. S. Ramanathan

(d) Poverty and Supply of Wage Goods in Tamil Nadu by M. Ramamurthi

(e) Women's Welfare in Tamil Nadu by K. G. Rama

(f) Productivity of Minor Irrigation in Tamil Nadu by G. Venkatramani.

(v) *Accounts :* The Committee noted the audited accounts for 1973-74

The Committee expressed its satisfaction at this good record of programme execution for the year and recommended that its present points of concentration be continued.

5. *Programme for 1975 :* The programme proposed for 1975 in document 5 AC/3 was reviewed and the following programme recommended :

(a) *Studies* : It was noted that consultations with Secretaries to Government in agriculture, rural development and local administration, social welfare, and labour and employment resulted in requests for the Institute to undertake the following Studies :

— Commercial Cultivation of Vegetables

— Problems in sugar cultivation

— Ground water problems

— Training Programmes of the physically handicapped

— Rural housing

— Link Roads in rural areas

— Economies of renovating village tanks

Taking into consideration the need to complete the uncompleted studies and the staff capacity with regard to new studies, the following programme of studies for 1975 is recommended.

(a) *Completing Studies* :

(i) *Primary Education and Adult literacy in Tamil Nadu :* This study under preparation for two years to be completed with the fresh materials available.

(ii) *Unemployment of ITI trainees in Tamil Nadu :* This Study to be rounded off with the analysis of the completed questionnaires and a recommended programme of action.

(iii) *Rural poverty and Rural underemployment in Tamil Nadu* : This Study presented to the last meeting of the

Committee and to be undertaken with the help of the ICSSR to be completed during 1975.

(iv) *Economic and Social status of small fishermen in Tamil Nadu*: As noted in the progress report for 1974, this study to be completed in early 1975.

(v) *Educational Profile of jobs in Tamil Nadu:* This study, also reported in the progress report to be completed in March 1975.

(vi) *Operational efficiency of small and Medium Plantations:* This Study as noted in the progress report to be completed in June 1975.

(b) *New Studies:* In view of the number of studies to be completed in 1975, the new studies to be launched during the year is limited to four:

(vii) *Commercial Cultivation of Vegetables*: The State government launched a Rs. 6 lakh annual programme for the commercial cultivation of vegetables since the Fourth Plan. The spread effect of the programme has been limited and the response of the farmers to the programme has not been cumulative. It is necessary to examine the functioning on the programme, to identify the bottlenecks to its development in relation to inputs, marketing structure, prices, returns, and propose the necessary restructuring both from the producers' and consumers' point of view.

(viii) *Economics of sugar cane cultivation:* Over the Fourth Plan the area under sugarcane cultivation has expanded in the State, while the yield and recovery rates have declined. It is proposed to examine the economic factors operating in regard to this situation, work out the cost benefit ratios of the improved technologies and package of practices in order to propose a programme of increased cane yields.

(ix) *Link Roads Investment:* The State's large investment programme in link roads in rural areas is expanding. A study is needed to identify and quantify the pay off of this investment in terms of increased marketing of rural produce, improved distribution of essential goods and services needed by rural areas and other social consequences. In the process, the returns to alternative investments in rural development will have to be taken into effect in formulating the future magnitude and direction of the links road investment programme.

(x) *Rural Housing*: The State has embarked on a programme of rural housing at a unit cost of Rs. 4,000 per habitation. With the limited resources available, the programme in effect results in isolated building efforts by a few individuals, leaving the existing poor housing rural conditions largely untouched. The question is posed as to when there will be some change in rural housing conditions. Also the possibility of providing houses for 22-3-per cent of the rural teachers to avoid the problem of non resident teachers should be investigated. A Study of the comparative costs and advantages of new rural housing versus improved rural housing will be undertaken with a view to determining a more effective way in which the limited investment resources in this programme should be used.

3. **Seminars :** **The 1975 monthly Seminar programme will be as follows :**

Members : The membership of the monthly seminar will be :

	Name	*Subject*	*Residence*
1.	C. M. Abraham	Sociology	Madras
2.	M. S. Adiseshiah	Economics	Madras
3.	M. S. Appa Rao	Management	Madras
4.	B. Ardhanareeswaran	Social Science	Madras
5.	M. V. Arunachalam	Business Management	Madras
6.	S. V. Chittibabu	Education	Madras
7.	A. Devasia	Economics	Madras
8.	A. Joshua	Education	Madras
9.	T. S. Jayakar	Public Administration	Madras
10.	K. Jhaveri	Human Science	Pondicherry
11.	V. C. Kulandaiswamy	Technology	Madras
12.	C. T. Kurien	Economics	Madras
13.	M. S. Meena Kumari	Economics	Madras
14.	T. C. Mohan	Economics	Madras
15.	J. P. Naik	Education	New Delhi
16.	T. S. Narayanaswamy	Journalism	Madras
17.	T. V. Natarajan	Political Science	Madras
18.	R. Nityananda	Management	Madras
19.	S. Nityananda	History	Madras
20.	K. K. Pillai	Social Science	Madras
21.	S. Pathankar	Education	Madras
22.	S. Pothan	Law	Madras
23.	P. V. Raj Kumar	Economics	Madras
24.	J. Ramachandran	Political Science	Madras
25.	A. Ramkrishnan	Science	Madras
26.	S. Ramanathan	Sociology	Madras
27.	R. Ramanujam	Economics	Madras
28.	M. N. Rao	Business Management	Madras
29.	S. Sampath	Technology	Madras
30.	M. R. Santhanam	Economics	Madras
31.	V. Shanmugasundaram	Economics	Madras
32.	R. Sundaresan	Education	Madras
33.	M. Thomas	Human Sciences	Madras
34.	T. S. Venkataswami	Economics	Madras
35.	R. Venkataraman	Planning	Madras
36.	S. Venkataraman	Economics	Madras

Programme :

Theme : Current Problems in Tamil Nadu

Subject	*Author*	*Chairman*	*Date*
Tamil Nadu Economy 1973	T. S. Venkataswami	T. V. Natarajan	Thursday, 30th Jan.
Anti-Inflationary measures	Fr. A. Devasia	M. N. Rao	Thursday, 27th Feb.
Energy Problems	S. Sampath	A. Ramakrishnan	Thursday, 27th Mar.
Student Unrest	M. Abel	S. V. Chittibabu	Thursday, 24th April
NO SEMINAR IN MAY			
Pollution Problems	V. C. Kulandaiswamy	M. S. Appa Rao	Thursday, 26th June
The Rural Poor	P. V. Rajkumar	K. K. Pillai	Thursday, 31st July
The Urban Poor	S. Ramanathan	J. Ramachandran	Thursday, 28th Aug.
Women in Tamil Nadu	S. Nityananda	K. Jhaveri	Thursday, 25th Sept.
Slum Clearance and Social Change	C. M. Abraham	S. Ramanathan	Thursday, 30th Oct.
Economics of Election	T. V. Natarajan	R. Venkataraman	Thursday, 27th Nov.
Taxation of Agriculture	V. Shanmugasundram	M. V. Arunachalam	Tuesday, 23rd Dec.
Tamil Nadu Economy 1974	Dr. C. T. Kurien	R. Ramanujam	Thursday, 29th Jan'76

4. **Inter University Programme**: (a) Under the auspices of the ICSSR Southern Regional Centre, the Fifth Annual meeting of the Heads of Departments of Social Sciences of the Southern Universities will be held in the Institute in December 1975 to (i) discuss problems of teaching and research in the Social Sciences, (ii) improve text books and methodology courses for research students, and (iii) plan the Sixth Interdisciplinary Research Methodology workshop for 1976.

(b) With the financial support of the ICSSR the Fifth Interdisciplinary Research Methodology Workshop on the theme 'Regional Planning and a Poverty' will be organised at the University of Mysore in May 1975. It is proposed to invite 30 Heads of Departments of Economics, Political Science and Public Administration, Geography, Psychology, Sociology and Management from the Southern Universities to continue work begun at the Fifth Workshop. It will be assisted by resource persons from outside the region.

5. ***Conference***: If other programmes do not intervene, the conference on the

development of small and medium industries in Tamil Nadu planned for 1974 will be organised with the help of SIPCOT, SIDCO and TIDCO. This programme should have a rather low priority as its execution will depend on the calls made on the Institute for other more urgent seminars and meetings, as indicated in the progress report.

6. **Publications :** The following publications will be issued in 1975 :

1. The monthly issue of the Bulletin — Vol. V Nos. 1-12.

2. Rural Employment in Tamil Nadu — J. Vishvananthamurthy.

3. Educational Profile of Jobs in Tamil Nadu — V. J. Ravishankar.

4. Economic and Social Status of Small Fisherman in Tamil Nadu—C. Selvaraj.

5. Primary Education and Adult Literacy in Tamil Nadu—A. Joshua.

It is proposed that some of the above publications might be translated into Tamil and diffused widely among the Tamil speaking people.

It is proposed to continue the contracts with the St. Louis Institute Press and Sangam Publishers for the Institute's Bulletin and books.

7. **Co-operation with UN and other Institutes :** The Institute will act as technical adviser for certain programmes of the UN and UNESCO, at their request and within the limits of staff, time available, and continue its co-operation with the Union and State Planning Commissions, ministries and research istitutions.

A warm note of thanks to the Chairman for his help and guidance was recorded·

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December Development Seminar : The paper for the December Seminar, Financial Frame of the Fifth Plan by Dr. Krishna Rao, Reader of Economics, Madras University, together with a summary of discussions held on Monday, December 23 under the Chairmanship of Mr. T. S. Venkataswami appears as the first article.

Second Article : The Presidential address of the 57th Annual Conference of Indian Economic Conference, Towards a Little Less Irrelevance, appears as the second article.

Book Review : A review of Prof. C. M. Abraham, Reader is Sociology, Madras University of the Institute's 8th publication—Women's Welfare in Tamil Nadu—concludes this issue.

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FINANCIAL ASPECTS OF THE FIFTH PLAN OF TAMIL NADU

BY

B. KRISHNA RAO

Department of Economics, University of Madras

The financial framework of the fifth year plan as proposed for the State of Tamil Nadu is briefly discussed here. The remarks made deal with certain aspects of policy-making under the Plan, the pattern of government expenditure, and the revenue burdens per capita. A consideration of these aspects would enabie us to cover some of the important problems of planning process.

Strategy of the Plan

'A plan is not a list of all the things that every one would like to have done, or which any one believes ought to be done,' said Prof. Galbraith. A plan implies a strategy. A strategic policy factor in the Fifth Five Year Plan of Tamil Nadu is the priority that came to be accorded to social services in terms of government expenditure. Under planning, securing a high rate of economic development and promoting socialist egalitarianism have always been two important goals in India. For the promotion of equality in an economic sense, for dealing with the problem of poverty, and for modernising the socio-economic structure, the State of Tamil Nadu has come to depend upon the strategic use of social service expenditure along with investments for physical capital formation. This is indeed a 'generalised approach for capital formation.'

Plan outlays

'For social service expenditure, an allocation of Rs. 444 crores is made in the plan. Next comes Irrigation and Power with a proposed outlay of Rs. 396 crores. For Industries and Mining the outlay considered has been of the order of Rs. 79 crores which is however lower than the amount of Rs. 91 crores provided for transport and road development. The relative importance of these heads of expenditure can be seen from Table I.

For a volume of physical resources to be used for development purposes, such as that used in the earlier plans higher outlays are now called for in view of the higher level of prices now prevailing. The fifth plan proposed to step up the rate of resource-use. This is indeed necessary for securing the plan objectives. To cope with the problem of unemployment by releasing the forces of human and physical capital formation larger outlays are indeed necessary. The total volume of developmental expenditure touched the level of Rs. 300 crores per annum during the Fourth Plan period. The level goes up further under the Fifth Plan.

Capital Formation

The income generated by the State government is an important concept for analysing government activities under the plan. In a process of promoting economic

growth, *particularly when a socialistic pattern is aimed at, the net capital formation in the government sector has much importance.* Such capital formation has significance for income flows over time, and on the asset structure that is developing in the economic system. Self-generating growth requires that the capital formation processes be encouraged, and that employment be matched with it. The processes should result in surpluses which can further be used to meet development objectives.

It would not be wrong to argue that growth processes can be induced through social service expenditures. If well administered, they improve the efficiency of labour and add to the nutritional and educational standards of the people. Redistributive expenditures, as on social service expenditures, at their best, are effective improving production and reducing the impact of certain risks on the economy. The problems related to social service expenditures in the context of the Indian economy offer a vast field for research. Before definitive conclusions can be set out the necessary studies of these problems should be made. From the financial standpoint, the reliance on loan financing by the government can be of a high order when net physical capital formation in the government sector is brought about than when consumption expenditures on social services are incurred.

In Tamil Nadu there are many urban areas and about 14,120 villages and the distribution of expenditures should be evenly matched with the needs of the population groups. It is here that the crucial problems of formulating welfare and capital development schemes arise. The need to have short term plans for different areas, reinforcing plan policies and programme is there. Further local financing agencies have to go on an even keel with the programmes implemented by the State government for the benefit of various areas.

Per capita income

The 12-year perspective plan for the State of Tamil Nadu contemplates a doubling of the per capita incomes by 1983-84. The per capita income levels have in fact followed a zig-zag pattern of movement in the past. There had been a decline in the per capita income from the level of Rs. 330 reached in 1960-61 to Rs. 319 by 1965-66. In the next five years there had been an upward spurt. The non-plan outlays caused considerable income generation in the public sector during the Fourth Plan. The momentum of the past as from 1960-61 does not however seem to be the thing that makes the per capita income to rise to very high levels in the next few years. Mention may also be made here of the fact that the income estimation procedures which now consider 1960-61 prices may need to be revised before reliable comparisons in per capita income levels can be made for even the next few years.

Combating social evils:

A concern with social evils is not out of place in government finance. Indeed a welfare approach in planning and public policy cannot cut its moorings with public ethics and individual ethics. Already for preserving Gandhian values, the Tamil Nadu government sacrificed its revenue to some extent by implementing dry laws.

The need for anti-corruption measures would be very keen indeed if the distributive justice to be secured through social service expenditures is to be kept above reproach. One per cent of these expenditures, say, can be used for inspection so that the expenditures are freed from the taint of corruption, and release their intended effects. When the proper

use of resources can be thus ensured Central assistance when necessary for the the State can be justified from the standpoint of morality and social justice of economic criteria.

Central Assistance :

Central assistance would be indeed a fundamental requisite for financing the plan. But the assistance from Tamil Nadu has been relatively declining from plan to plan. The transfers from the Central government have shown a small but a significant correlation with the backwardness of the states; one of the objects of the tranfers being the promotion of inter-state equality in per capita expenditures on social and development purposes. The states ranking low in this regard would be in a better position to attract transfers from the Central government in this situation. However the emphasis on Central assistance in general cannot be less but even more when the State has concrete projects for capital formation, and for social services such as medical aid, and housing.

In the gamut of fiscal policy, the levelling up of low incomes through redistributive expenditures, securing higher rates of capital development expenditures and allowing for a possible rise in non-plan expenditures pose complex problems. The Centre-State financial relations, the degree of inter-regional co-operation necessary for meeting some of the crisis as in power generation and the modification of the melieu in the social, economic and political aspects raise indeed thorny problems at the present time.

The economic situation today :

The prices now are at a high level. The rates of interest in the open market have also risen. Loans would need to be paid dearly in interest. The wage pattern has followed the pattern of trade union pressures. The yields from preference shares show fluctuations. The prices of land have become uneven more and more. The precious metals have recorded a rise in price. Dealers therein met many risks and made much profit. The hopeful predictions made by some economists regarding the fall of agricultural prices in the seventies owing to the green revolution have not materialised. The State now faces the need not only to lubricate the progress of plans with finance but to adopt physical controls as well with a view to securing a certain degree of stability. This is the scenario in which the government of the states are called upon to play their part and plan their course of action.

A case can be made out for increasing the revenue-raising powers of the states when ambitious plans are launched. Or, there can be a greater devolution of Central revenues. There is still another alternative of centralising planning even more and more so that the burdens of the states would be less and less, but this is the course which seems least likely.

It is plausible to argue that per capita income levels and per capita tax burdens should be taken into consideration while examining taxes and expenditures. This would indeed serve a purpose though limited in its nature for analysis. The indirect taxes, it used to be argued, could take one unawares in regard to their burden. Planning however has partly changed the situation. Some of these taxes are no longer such that those who pay them are under an ignorance. But what is not always clear is whether if at all the commodity taxes are borne by diminishing return enterprises which sometimes need not be encouraged, or by the increasing return industries which can more than make up for the taxes through increased production and still maintain the price level. It may be even said that the spiralling of prices

in the planned economy, occurring sometimes contrary to its assumptions, has allowed both types of enterprise to go on. The consumer is not much better off when the real income levels move in a zig-zag manner, rising and falling.

Tax and non–tax revenues :

If the object of equality promoted by suitably designed public expenditures is not to be contradicted by the use of regressive consumption taxes, the State of Tamil Nadu would be led to rely on increased transfers from the centrally administered direct taxes, and other assistance and the taxation of agriculture. To the extent the plan expencitures are consumption-oriented, the State would be under necessity to aim at a balance in the budget.

The dilemmas of financing the plan stem from the choices it has to make in regard to tax-revenue and borrowing. The sales tax, the State excise duties and the tax on vehicles had been providing four-fifths of the revenues of the State until recently. They would have to play their role in financing the Fifth Plan, though the difficulty of increasing them without causing cost or price inflation must be faced. As to the agricultural sector there is the water cess and the assessment on wet land which can be considered for augmenting revenues from large farmers whose 'ability to pay' has increased. The agricultural income tax too can be applied to this class. In equity and on economic grounds, the agricultural sector too has to contribute its best to the revenues of the State.

The urban land tax, the electricity duties have both to play a role of importance in the light of the schemes to be implemented under the plan for urban and rural development.

While economy has to be practised in making public expenditures, and in granting subsidies, it can be said that profits from public enterprises are of necessity to be accumulated. Such profits can form an important source of investible resources for the plan. All in all with the State turning to non-tax resources instead of the usual fare of tax revenues to promote welfare and growth, there can indeed be a dramatic turn of events in implementing the Fifth Plan.

In Table III some estimates for population, for rice production and for agricultural production in general can be seen. The tax receipts on a per capita basis have also been shown. The table shows estimates when a smooth curve is passed through all the points over 1970-71, 1971-72, and the revised figures on 1972-73. As judged from these figures, the outlook for agricultural production in general has some favourable symptoms, but for rice outputs it is different. The mid-year population estimates show indications of a decline of the population size. The revenues from the taxation of vehicles and the corresponding money burdens per capita (2.3 in Table III) show signs of increase. The total revenues of the State (3.1 of the Table) do not present a similar picture. In fact they seem poised for a decline. Only a slight increase in revenues from the Central taxes is indicated (1.1 of Table III). The population estimates taken together with per capita tax receipts would provide an idea of the revenue position of the State. It must be noted here that there are many difficulties in forecasting revenues. The Finance Commission of 1973 has rightly underlined the need for realism in making revenue forecasts. For unrealism carries with it a risk of precipitating budgetary imbalances for the State which is too sanguine and is already set on the path of large plan and non-plan expenditures. The smooth curves indicated by the equations of Table III do not claim to be realistic but they certainly help in introducing an element of caution in assessing the growth of revenues on wide front in the course of ambitious planning.

A Scheme of Finance :

For purposes of discussion a financial framework for the plan expenditures may be set out as follows :

1.	States's Own Resources	Rs. Crores	546
	(a) Tax resources	,,	404
	(b) Non-tax revenues	,,	142
2.	Transfers from Central Govt,	,,	492
	(a) Shared taxes	,,	160
	(b) Grants-in-aid	,,	332
3.	Loans from the public	,,	176
	Total	,,	2252

This is a scheme of finance for a big plan. With a revenue burden of Rs. 110 p.a. per caput, and with a population averaging 45 million, the revenue resources would amount to Rs. 2,475 crores nearly during 1975-80. This figure would allow about Rs. 252 corres for non-plan expenditure per annum. But this amount can be larger depending upon circumstances. When budgetary deficits occur compelling public borrowing, the above scheme allows for this to a tune of Rs. 176 crores for purposes of the plan. When revenues would fall behind, it would become necessary to borrow and share with the future some of the burdens of development as contemplated under the Fifth Plan. This may be at a rate to which Tamil Nadu was not accustomed in the past such a dilemma has to be faced in all plans and under the Fifth Plan in particular.

TABLE I

THE FIFTH FIVE YEAR PLAN

Item	*Plan outlay*	*% of total*
1. Agricultural and allied programmes	146.84	12.10
2. Co-operation and community development	56.43	4.65
3. Irrigation and power	396.00	32.61
4. Industries	79.40	6.55
5. Roads and transport facilities	91.30	7.52
6. Social and other services	444.21	36.57
	1214.18	100.00

TABLE II

PER CAPITA INCOME AND SOME TAXES

	Share from Central taxes (Rs.)		*State taxes (Rs.)*		*Per capita income (Rs.)*
	Income tax	*Agrl. Income tax*	*State excise duties*	*State tax*	
1960-61	4.09	0.40	0.10	5.70	330
1965-66	5.60	0.33	0.13	11.09	319
1966-67	7.79	0.39	0.14	12.95	322
1967-68	8.74	0.42	0.20	14.71	329
1968-69	9.92	0.48	0.21	15.60	332
1969-70	11.74	0.49	0.29	18.06	337
1970-71	14.07	0.45	0.34	20.08	...
1971-72	17.39	0.49	5.36	23.85	...

TABLE III

PER CAPITA TAX RECEIPTS AND OTHER ECONOMIC INDICATORS

1.1	Revenues from all central taxes (Rs)	— 53.93+68.00 (1.04)X−1971
1.2	Revenue from central income tax (Rs)	17.61−10.44 (0.82)X−1971
1.3	Revenue from central excise duties (Rs)	24.43−17.75 (0.92)X−1971
2.1	State revenues (Rs) (Tax and non-tax)	+52.19−15.76 (0.40)X−1971
2.2	Revenue from sales tax (Rs)	27.47−7.39 (0.49)X−1971
2.3	Revenue from taxes on vehicles (Rs)	5.29+0.07 (3.67)X−1971
3.1	Total on revenue account (State revenues+Central) (Rs)	108.40−31.41 (0.38)X−1971
4.1	Agricultural Production Index	68.28+62.22 (1.37)X−1971
5.1	Rice production ('000' tonnes)	1422.03−427.03 (0.30)X−1971
6.1	Estimated mid-year population in millions (+indicated mid-year)	45.53−4.76 (0.81)X+ −1971+

Summary of Discussion

In the discussion of the Seminar held in the Seminar room of the Institute on Monday, the 23rd of December 1974, under the Chairmanship of Dr. T.S. Venkataswami, Professor and Head of the Department of Economics, Presidency College, Madras, the Chairman prefaced the discussion with the statement that there are two approaches to planning, namely to set the targets and raise the resources required or in the alternative to establish targets according to resources availability. The key objective of the Tamil Nadu planning is to double the per capita income by the end of the Sixth Plan which requires a total investment of Rs. 9,655 crores at a capital output ratio of 2.3, the State investment being Rs. 4,200 crores at 1970-71 prices. This projection assumes an annual compound growth rate of 7.65 per cent involving a savings rate of 17 to 18 per cent as against the actual 11 per cent. The general thinking in resource mobilisation is that our country is overtaxed. This impression is incorrect. The tax burden is only 13 per cent of G.N.P. as compared to U.K. 33 per cent, Japan 20 per cent and China 30 per cent. So increased taxation as a source of additional revenue is by no means exhaused. The tax structure needs revision for this purpose. In the two decades 1951-71, direct taxes have increased from 2.3 to 3 per cent only, while indirect taxes have risen from 4 to 11 per cent. As at present direct taxes are lévied by the Centre and indirect taxes by the State. The main sources of State income, constituting four-fifths of the State revenue, are Sales Tax, Excise and Vehicles tax. It was desirable that Public Enterprises should contribute more to State income. Further all the projections have to be revised as the estimates of expenditure are based on 1970-71 prices.

The author in his presentation said that the paper dealt with the three main aspects of planning process, viz. policy making, pattern of Government expenditure and the revenue burdens per capita. A strategic policy factor in the Fifth Five Year Plan in Tamil Nadu is the priority given to social service expenditure amounting to Rs. 444 crores, as an instrument for dealing with the problem of poverty, modernising the socio-economic structure and developing the human resources, along with investments conducive to physical capital formation. Therefore it is seen that capital formation includes physical capital and development of human resources. The variations of per capita income in the State has so far followed an uneven pattern and has not generated any momentum. Any improvement in per capita income through inputs like power and irrigation requires a regional approach. Per capita income may rise for definite sections of society and for those who have investible resources. Taxation and expenditure are influenced by concepts of morality and political ideologies. Any new levies should be oriented to enterprises which show increasing returns. Tamil Nadu to improve its resource position should try for an increased share of centrally administered direct taxes and tax on agriculture. At the State level increases through traditional resources must be balanced against possible inflation. Revenues can be supplemented by an increased water cess and wet land levy which would be met by farmers with ability to pay as in the case of a tax on agricultural income. Additional sources are the urban land tax and electricity rates. Non-tax resources such as accumulated profile from public enterprises, can form an important part of investible funds. Economy in incurring public expenditure and in granting sub-

sidies and realism in revenue forecasting should be a necessary adjunct to planning.

During the discussion serious doubts were expressed about the wisdom of considering the *increased per capita income* as the important basis for planning. Per capita income is perhaps an adequate index of progress in developed countries such as U.S.A., U.K. and Japan. For a country like ours with wide disparities of income it had to be used with other indicators like the expenditure rate over time of the lowest 30 per cent of the population. An equally important, but not quantifiable factor, was the change in organisations to expedite progress. An instance in point is land reform. The priority given to social service expenditure was mainly at the State level. The sizably higher central allocations for the other heads of expenditure when added to the State outlay altered percentages materially. The forcast made in the paper of a slight decline in the total revenues highlights the necessity to make further efforts towards resource mobilisation, particularly in view of the fact that our plan expenditure has been Rs. 140 crores instead of Rs. 220 crores targetted in the Fifth Plan. A suggestion was made that the subsidies on irrigation and electricity could be sealed down, augmenting resources without raising taxes and affecting only those farmers who are well able to pay the actual cost.

It was pointed out that there were a number of organisations for mobilisation of capital resources and a State Unit Trust and a Regional Board of the L.I.C. to channel investible funds are other possibilities to be explored. A reference was made to political constraints determining economic policies. In referring to non-tax resources it was felt that a dual pricing policy as that for sugar might add to State income. A view was expressed that in computing per capita income concealed income or indirect resource transfers were not taken into account. A query was raised as to why direct taxes could not be increased to further augment revenue. A suggestion was also made that as the administration of revenues was difficult, research was needed to devise an effective structure. The agricultural holdings tax as recommended by the Raj Committee was referred to, though clarification on the tax jurisdiction was required. An opinion was expressed that expenditure on formal education could be reduced with advantage. The limitations of the concepts of GNP and per capita income were accepted, but they provided a working basis.

The paper was commended as a compressed account of the resource mobilisation perspective for the Fifth Plan in Tamil Nadu.

TOWARDS A LITTLE LESS IRRELEVANCE *

The Relevance of Economics

The Economics profession in India today is at the cross roads. Like planning, its relevance to the *condition* of the country is being questioned.

What is this condition? I believe that we economists are agreed on the following endogenous ills of the economy.

Rampant inflation
Mounting Unemployment
A parallel Economy
Stagnant Investment
Declining Savings
Distorted Distribution
Massive Poverty.

I think we would also agree on the following exogenous factors which dominate it.

An institutional Frame that results in an Unjust Social Order and increasingly Inequitable income Distribution.

Personal and Institutionalised Corruption.

A Runaway Population Growth

A Society in Mutation.

Against this agreed picturisation of our economy, let us look at the tools of our trade. Here I shall take some of the most widely used Economics textbooks in our universities which embody these tools and which I shall use as a sample. The texts are usually divided into several parts, which in our universities we have retitled into Macro Economics, Fiscal Economics. Monetary Economics, International Economics and so on. The first part of these texts normally deals with what it calls basic economic concepts which cover, *inter alia, gross national product* now being transformed into measure of economic welfare or net economic welfare, scarcity and the production possibility frontier, zero population growth, how the free enterprise system solves the basic economic problems, people's capitalism, the decline of poverty, business organisation and the giant corporation, trade union, growth of government expenditure and taxation. Here under the guise of concepts, we are really familiarising ourselves with a particular set of institutions, the institutional frame of the affluent market economies and are being conditioned to understand their rationality, efficiency and automaticity. A second part deals with the determinants of National Income—savings, consumption and investment, marginal propensities to consume and to save, the multiplier, the paradox of thrift, business cycles and interactions of the accelerator and multiplier, prices and money supply, inflation, deflation and income redistribution, the federal reserve or the central banking system and the control of spending, money, liquidity preference, marginal efficiency, fiscal policy and public debt. In this part too the tools we are acquainting ourselves with are those which operate under certain forms and institutional structures, as set forth in the first part, of national income generation. The third part deals with the price mechanism and the sectors of the economy, starting with demand and supply elasticity, equilibrium, individual

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* Extracts from the Presidential Address by Dr. Malcolm S, Adiseshiah on the occasion of the 57th Annual Conference of the Indian Economic Association held at the Andhra University Waltair on December 27, 1974.

and market demand, consumer's surplus, indifference curves, individual firms' supply curve and market supply, non-optimality of competitive laissez faire pricing, perfect and imperfect competition, oligopoly, economic welfare and theory of games and conglomorates. *In this part we are introduced to some rigorous and useful static theory but it is only that with little relation to the real world anywhere.* In all fairness it must be admitted that economics, like all, probably a little more than, the other social sciences in its search for quantifiable aggregates can only deal with abstract variables. Its behavioural preoccupations whether they be the behaviour of Indian prices or the production behaviour of leets—are pre-occupations with the behaviour of abstract quantities. A fourth part deals with distribution of income, land, labour, capital and their pricing, the aggregate or surrogate productive function in the US or the UK, margial product theory, competitive equilibrium rents and costs, real wage determination, interest determination the various views of profits ranging from factor returns to surplus value. Here we are introduced to a labour scarce capital abundant economy and the tools needed to understand its working. There are also some additional irrelevances in this homogenous, monolith concept of capital because it shuts off problems of unemployment, reswitching, wage levels—aligned or non-aligned—with profit rates, the composition and measuring of the capital—output ratio, capacity utilisation and monopolies—in all of which the economics profession in this country should be involved and should provide the inputs and parameters for the econometrician. The next part in our text books usually deals with international economics,—foreign exchange rates, gold and dollar standards, balance of payments, international capital movements, comparative costs and advantages, tariff studies, development and military aid, IBRD, IMF and EEC, the dollar, the deutsch mark or the yen glut and SDRs. Here we move into the dynamics of interrational exchanges which to the extent of 80 percent is the exclusive trading relations between *and among the* 30 richest economies in our world *based on a model of imports and* exports always being in balance *at least* among them. (This was of course before the oil producers unbalanced this model balance). But then again I must admit that these text books are a refreshing contrast to the diet of irrelevant orthodoxies concerning the high income countries on which I was nurtured as a student. These texts today are written in *lively, brash,* seemingly irrelevant prose which lights up our understanding of the economies of these countries, particularly for the fortunate few of us who have been there. The apologetic note pervading the analysis of profits and other market incentives, the analysis favouring a growing public debt as a means of maintaining high employment levels, taxes as a tool of income distribution, comparative advantage in trade theory not as an immutable fixed point in time and space but as changeable and changing by policy decisions, and the advocacy of what we used to call the demon of inflation and a positive fiscal policy to accelerate growth—these heresies of my youthful days are accepted economic platitudes of policy in these countries, thanks to these texts. Finally in the texts there is a kind of appendix which deals with current economic problems—open economies and armaments, the theory of growth and problems of growth, development and underdevelopment, inequality, poverty and quality of life, *full* employment, and alternative economic system. We have ourselves faithfully followed this *chronological order* in our curricula for what we term Macro economics et al.

The Margin

I wish that for us in India these very attractive text books started the last part which as I said reads more like an appendix than as part of the main corpus of economic wisdom expounded in the volumes. But then these text books have not been written for our use and so it is not surprising that the non-applicability of what we learn from them to the condition of our economy, which I have attempted to define at the start, stands out. Our tools as a profession arise out of an economic and social environment which is unrelated to ours. The concept of the margin for instance arose from concentrating on the implications of scarcity, the allocation of scarce means to multiple ends resulting in the familiar paradigm of firms supplying goods and demanding factors in proportion to their marginal costs and households supplying factor services and demanding final goods as to equate their marginal utility. The optimality of competitive markets thus directs the economy towards the static equilibrium of prices, supplies and demands. There is the further problem of the abstract variables, "the firm", covering both our large monopoly houses as well as the pan-shops around the corner, and "the household" covering the rich home and that of the landless labourer. The scarcity and the static equilibrium theory were born in a society where labour was literate, mobile, highly organised and becoming increasingly scarce, where all available land was cultivated by private land owners in large or sizeable plots, where all economic sectors were heavily capitalised with spare capacity, and where there was a wide field for private individual and corporate enterprise. Even so there was the problem of extending an exchange equilibrium theory to production and distribution systems, with their covert assumptions ignoring what where called "initial endowments"—a form of wishing away the reality of property rights, wealth holdings, and skills differentials. The scarcity in our society is of a quite different order. Here land is scarce, and all its products—wheat and rice, jowar, bajra, cotton and oil seeds, milk and meat—are even scarcer in their availability as seen in the market, with their dual or multiple prices. I have always thought that there is a place for the use of the margin in one sector in our society, namely the rent of land, but even here one of our colleague after recent empirical verification of the marginalist analysis to West Bengal agriculture warns that it does not explain farm behaviour in a backward labour surplus economy such as ours, but might on the other hand lend support to "reactionary policy proposals". Again capital goods in their disaggregated "quorum of basics" are scarce, particularly in agriculture and those manufacturing sectors which are involved directly and indirectly in the production of goods needed by the poor majority. On the other hand there is abundance of labour—both skilled and unskilled,—the large majority of whom are unorganised. Under these conditions, the economic problem is not the static one of the optimum allocation of existing resources, of grubbing around the margin, of working out preferred positions by squeezing out this and adding that at the margin. Our problem is to remove scarcities which removal is the function of technology, and technology till very recently did not enter the economist's universe of discourse or when it did as from the neo classical times, it became part of the macro explanation for the agricultural expansion, the productivity of capital and the technical progress of the same affluent economies. That is, technology became the accidential inescapable determinant of income distribution of factors, of how rapidly marginal returns to labour versus capital diminished as a func-

tion of innovations and technical engineering possibilities. For us, on the contrary, technology is no accident. It has become institutionalised and hence can become a positive variable. Equally our problem is to counter the imposed and induced scarcity caused by our institutional frame which invites the holding back and piling up of inventories, supplies and stocks to create further scarcities, which forces prices up and cuts back on the low consumption of the poor majority. The tools of the static equilibrium or optimum models provide us with no means of dealing with the problem of rampant inflation. May I suggest that our starting point in the study of factors of production should be (a) technology and its physical coefficients and (b) the institutional frames and the income distribution results, which is the notion of strategic aggregates.

The Multiplier

Taking the triple problems of the parallel economy, stagnant investment, and declining savings, here again our related tools derive from a society in which (a) household incomes are fairly equal, meaning none living at the poverty level, resulting in turn in the demand for food being inelastic, and making mass production possible, (b) liquidity preference is a function of the cash needed to make current payments, of prudence and the interest rate, (c) savings are mobilised by the organised capital market, with a high rate of personal savings, and (d) the rate of investment is usually above 20 percent of the national income. In this kind of society, the determination of incomes, employment and output and investments' multiplier effect are co-terminous. There are subtle differences in the working of the multiplier in such societies as between states with a full employment constraint and those in which real income and employment are below the full employment level. These refinements have little meaning to our society. Where there is limited (inelastic) supplies of land, capital goods, and agricultural and manufacturing inputs, the multiplier works to increase prices and expand and feed the parallel economy, and not stimulate output or accelerate employment. We still cannot with our stagflation tools explain the co-existence of fast rising prices and mounting unemployment. In this context, our use of planning models with given target figures of production, production functions based on constant and highly aggregated capital-output ratios, using linear programming techniques is somewhat of a waste of time. Even in their native habitat, these tools, with leap frogging production functions and unproven hypothesis about linear homogenous or surrogate production functions, are suspect because of the non-viability of aggregates, the debatable equal proportions of inputs hypothesis, and the assumption of diminishing returns to particular factors of production which has no empirical support. And when this empirical contradiction is then covered over by using the residual theory, we move into the realm of economic illiteracy. As for the liquidity preference in our society, it has little to do with individual prudence or the structure of interest rates. It is rather for us a function of tax evasion, trade enterprise, and the financing of high profit speculative, real estate, and more recently illegally held foreign accounts unaccounted deals. (What is the significance of the RBI directive for 'penal' rates of lending at 13 percent, or increased deposit rates at 11 percent, when the return on speculation in inventories, rice, wheat, dalda, cement, steel, is 100 to 120 percent). In fact the parallel economy that it has produced and is nurturing was never visualised by its innovative originator. My second suggestion thus relates to the use of empirical tools in examining and proposing means of increasing savings and investments and the very simple straightforward but

socially and politically brutal fiscal instrumentalities to eradicate the parallel economy and the procedures that feed it.

Capital

In dealing with problems of capital in relation to our condition, I am leaving aside the current discussions surrounding capital theory, as to whether or not it is a physical quantity independent of prices, as to its double meaning as stocks of equipment on and with which labour works and as a fund embodied in different forms with property rights attached to them, as a wage fund as against its being commodities as means of production, culminating in the deathless prose to which one of our visiting colleagues treated us earlier this year when she declared forthrightly, "the marginal productivity theory is all bosh." I am concerned here with a more limited lacunae in our treatment of capital. When dealing with the problem of massive poverty in our country, we find that our economic text books have no place for nutrition, drinking water, housing, health services and education for the people living in poverty. except as consumption items. We have agreed to call them the minimum needs programme in the Fifth Plan, which is another aspect of the consumption approach. This is the approach in affluent societies where the "subsistence budget" or a "minimum comfort budget" for a family of four is computed and its universal realisation is regarded as part of the commitment to human equality and dignity. A group of U.S. economists writing on Income and Welfare in the United States in 1962 declared: "the U.S. have arrived at the point where poverty could be abolished easily and simply by a stroke of the pen. To raise every individual and family in the nation now below a subsistence income to the subsistence level would cost about $ 10 billion a year. This is less than 2 percent of the gross national product. It is less than 10 percent of tax revenues. It is about one fifth of the cost of national defence."[8] Even in this passionate human rights plea, there was recognition that the subsistence budget was also an investment in an important means of production—what was called Social Capital formed by the people of the country. Corresponding to productivity and the pay off of physical capital, there are references to the high yielding nature of social capital, including the search for talent which must be relentlessly pursued and continuously nurtured. However it is true that the further growth in these rich societies does not depend on their investments in social or human capital, on raising the quality of their labour. For us in India, however, the expenditures on health, nutrition, housing, drinking water and education are essentially production inputs. Family planning methods—the sterilisations, the pill, the loop et al—are a part but always and only a part of this social capital package. The total package and its contents are for us essential means of production, while also being items of consumption with welfare and human rights over-tones. And this is my third plea, that among the factors of production that we teach and study, human capital be placed on all fours with the other production factors.

Time

Or again when dealing with any, some or all of our endogenous ills, our tools impose another limitation on us. The static equilibrium analysis with its assumption of ceteris paribus ignores time. In analysis of the structures and forces operating in the rich countries, time can be ignored, or taken as given, or when seen as the unknown and unknowable future treated as an ideological innovation. Concepts of accounting prices and shadow prices conceived as the prices which

would prevail if (i) the projected investment pattern was actually executed and (ii) the market equilibrium was a reality, are really timeless. It does not matter in those economies as to whether the time period assured is before the investment projects are carried out or while they are being executed or after they are completed. But even in those economies, this timeless assumption begs a number of questions relating to exogenous disturbances and gives a false sense of objectivity. Where the time preference element is taken into account as it must in the theory of savings, interest rates, the marginal efficiency of capital goods, it was always seen to work back or work towards a state of static optimum. The replacement of static state by steady growth state or one of *equilibrium* growth with the corollaries of warranted and natural growth rates is interesting but not very helpful extensions in relation to our society *where* technology, as noted earlier, is not neutral. Further in our economy, time and its accompanying "distortions" is of the very essence whether dealing with massive poverty, or resource transfers, or inflation, or unused capacities, or the time flow of output or consumption, the kharif versus the rabi season, the phasing of projects, or the determination of priorities. We can have a rise in price over time and no increase in supply over that time period, and it is no use calling it a backward bending supply curve, as if that explained the problem over time, while in actual fact it is only a means of describing it. There can be an increase in interest rates over both the busy and slack season, with a declining growth rate in deposits, which again cannot be dismissed by use of such tools as the marginal propensity *to consume* or the marginal propensity to save, without taking account of the peculiar and unique forms of our liquidity preference leading on to the parallel economy to which I have referred earlier. Even where the existence of disequilibrium is accepted as being due to stochastic parameters and a long time path in the movement to equilibrium, the nonlinear macro-economic models that are used are one sector disequilibrium models, which are a further abstraction and do not help. My fourth suggestion is that in the attempt to develop a much needed dynamic theory, we will have to go in for a degree of disaggregation, the glimpses of which we see in the social accounting techniques of decomposition, to which must be added what has been called a *descriptively relevant theory.*

This somewhat rambling disquiet with the traditional *economic* tools as we have come to study, teach and use them in our country leads me to two concluding observations–one on the pedagogy of Economics in India and the other on Economic Poliey for the country.

Economics Teaching

With regard to Economics teaching, against the day when we will have appropriate and adequate Economics text books for use in the country, a start can be made by breaking down the subject into a series of inter related studies. The start could be a fairly thorough grounding in the Indian institutional frame, starting with poverty in India, its statistical configuration made *familiar to us* by three of our colleagues, and going on to study of the position of and relations between landlords, tenants and landless labourers in food crops, cash crops, and plantation crops agriculture, the status of and relations between the managers and workers in publicly owned industries, corporations and agencies and privately owned ones, and the state and diffusion of education, health, housing, water supply, roads, markets, etc. in the country. This study which should

preferably be broken down into a series of empirical case studies will help in an understanding of our markets and their power, the links between sectors and classes, as well as our every day economic behaviour, but even more lay the basis for understanding that for us changes in organisation and not mere GNP increases represent development. If I may adapt what one of our U. S. colleagues says to our condition here in India, it would run thus ; if we economists paid as much attention to structures and organisational forms, existent and emergent, involving practicals in our class room, teaching as we do to marginal utility and marginal productivity, we should be helping both ourselves and our students to understand how the economy in reality functions. The next stage would be the study of the theoretical concepts which have emerged in the affluent economies, both capitalist and socialist, and which apply fairly fully to them—markets and prices, or their equivalent in the socialist plan, national income and expenditure, both ante and expost, and the capitalist and socialist concepts of them, linear programming and input and output tables, demand, saving, investment, the multiplier, the price level, full employment, the case for laissez faire and that for a regulated one, market failure and imperfections, the functioning of the centrally planned economy, comparative economic systems, international trade and balance of payments, economic and fiscal policies, mathematical models and testing, statistical analysis and forecasting, in particular least squares regression techniques, input-output tables and basic accounting methods and 'the laws' of Economics. The purpose of this second stage is to help in understanding the economic tools as they have grown out of their environment as well as in the epistomological and methodological rigour that all science learning calls for. This also I notice is the conclution of a review by our colleague from Poona of the problem of teaching Indian Economics in this year's first quarter issue of the Journal. The third stage is the most difficult stage because it is yet to be worked out, and that is the theory frames and concepts that will be arising out of the study of our economy. To begin with, I would use a series of two sector models. In this regard all of us Indian economists owe an unrequitable debt of gratitude to the non-economist who in this regard pioneered the way for us—Mahalanobis. I would go back to his investment sector—consumption sector model and its strength and weaknesses in using the Cobb—Douglas, Harrod—Domar sub-models, with their national income investment share, capital out-put ratio and assumed rates of growth. From there we could go on to study other two sector models—such as the power sector/wheat/rice output sector, health, nutrition and education sector/agricultural production and manufacture sector, the organised sector/the unorganised sector, the food crops sector/the cash crop sector, the agricultural sector/the agri and agro industrial sector, the core sector, the labour intensive sector, the capital goods intensive sector, the science and technology based sector/the handicrafts sector, the internally traded goods and services sector/the internationally traded goods and services sector, the basic goods sector/the non basic goods sector and so on. This exercise in what I would call macro economics should be aimed both at analysis and understanding of particular aspects and problems of each disaggregated segment of our economy, its inter relations with other segments, and the identification of concepts and conceptual frames which have a general validity for the economy as a whole. A fourth final stage would be a study of the history of Indian economic thought. This is probably an even more difficult exercise than

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stage three, because as far as I know no connected, continuous attempt has been made to identify the work and conceptual contributions of Indian economists, arising out of their analysis, study and involvement in our economy. I have made an outline of those whose writings I have read and whose thought has inflenced me. I found that this outline comprised 15 economists who are no longer with as and 15 who are still at work and are with us. I have classified them into five groups, 9 who have made or are making a contribution to monetary and fiscal theory, 8 who are or have been contributing to the macro-economic study of our economy, 3 who are extending the frontiers of agricultural economics, 4 who are on the point of identifying the parameters and variables of our unemployment situation and 6 who are or have been involved in probing into our institutional frames But this framework is extremely subjective. What it suggests, however, is that each of our major centres of economics teaching and research in the country might construct its own frame of the history of economic thought in India in relation, perhaps, to its specific area of interest. The Association for its part should undertake this urgent and major task of writing up the history of the Indian economic thought, so that it becomes available as a teaching and learning input in the pedagogy of economics in our country.

Policy Specificity

I now turn to the implication of the specificity of our economic condition as it relates to policy. Here I must begin with a preliminary and somewhat disturbing observation. I think all of you know that I have spent the best years of my life—over two and half decades—working for the economic development of the third world, and studying, observing and learning from the affluent one third of our world, as they are in the forefront of the international co-operation extended to the third world. I have now been back home for four years and am steeped in the planning and execution of the development plan of my State—Tamil Nadu,—and assisting that of the country. And the conclution that I have come to is that so little of what I have learnt from the 130 countries that I was observing and working with is applicable, or transferable to this country. Perhaps this would not have been so, if my observation and work had included the People's Republic of China, which unfortunately entered the United Nations system only after I had left it. I am referring here not only to the avoidable error of misplaced aggregation, including the blind use by us of the aggregated economic concepts of the affluent countries where they are an abstracted reality. I am referring even more to the fact that for India like China—which is the only other comparable economy—quantity after a certain point becomes quality, and quantitative differences become expressed in qualitative specificity. This means, that, like China, we economists in India will have to have our own road and develop our own concepts and frames arising out of our specific reality.

Policy Disaggregation

A second policy corollary of this disaggregated specificity oriented approach is that multiple policies must be expressed in multiple policy instruments. This of course is one of the elementary lessons of econometrics—that multiple policy objectives cannot be attained by a single or a few policy instruments. And yet surveying the scene on the eve of the Fourth Plan, that was precisely what was current. The only official policy instrument that existed for the first three plans was the Industrial Policy Resolution and it seemed to be implicitly and explicitly assumed that with this single policy instrument, all other policy objectives—agricultural renovation,

employment generation, population control, price stability and social justice would be attained. The 1966-67 drought precipitated an agricultural programme which has yet to be fashioned into a policy, bank rationalisation became an operational instrument without a clear elaboretion of what policy it was in expression of, and now after the travails of the national railway strike and a 24 per cent price inflation last year acclerating to 30 per cent this year, during 15 months of which seven DAs have had to be given, we are beginning to talk of a national wages and income policy. This kind of waiting on events to precipitate us into policy decisions should be replaced by elaborating separate policy instrument for atleast major policy areas. I for one identify seven such areas and instruments.

(i) A production instrument divided into an industrial sub-instrument and an agricultural sub-instrument and a communication sub-instrument.

(ii) A distribution and poverty instrument including subsidised distribution of wage goods to the poverty sector.

(iii) An employment instrument.

(iv) A prices, wages, incomes, and profits instrument.

(v) A population instrument.

(vi) A monetary, taxation and fiscal instrument.

(vii) A foreign trade and related exchange rates instrument, and

(viii) A savings—investment instrument.

In the Draft Fifth Plan we have taken a step forward in setting forth some of these policy instruments. But they need to be extended and those set forth have not been and are not being operationalised. Further there may be conflicts as between one instrument and another, and this is as it should be in our economy. But so long as the instruments are clear and the conflicts explicit, it is the function of strategies to work out their trade offs and hold together the policies. What I am trying to say in sum is that there should be some relation between policy formulation and their being operationalised, there should be separate policy instruments for each policy objective; and there should be a conscious orchestration of these objectives and instruments to form coherent strategies.

Policy and Information Exchange

A third comment that I must make based on my experience as a member of State Planning Commission is the dire need for a system of information exchange between the centre and the periphery. I leave each of you to decide as to the locus of the centre and the periphery. For me, for instance, Madras is the centre and Delhi the periphery, because what happens in agriculture, animal husbandry, fisheries, small and medium industries, power, employment, education, health, housing, distribution and above all what happens to the poor majority as determined by forces operating in Tamil Nadu and the neighbouring states, with policies—most of them vague and without the instrumentalities — emanating from Delhi. But seriously, the policy instruments are all India instruments or they are not instruments. Under the present system where all financial powers lie ontside the states, there is need for a system of information exchange, solicitation and co-ordination of forecasts between the Union authority which decides and operates on the policy instruments, and the states which should at least be responsible for packaging the requisite information, on the basis of which the policy instruments can be effectively used. At present there is simply unlinear exchanges - transmission of

data on desired quantities by the States and return transmission of prices and resources data by the Union authorities — along with the usual armoury of inducements, controls and penalties. In place, disaggregated programming requires a communication system between the States and the controlling centre, concerning resources, quantities and constraints — what are termed commodity dimensioned packages of outputs, institutional development and resource forecastes. Only then can the target degree of forecast accuracy be attained, the near optimum resource allocation, not in some idealised state of static equilibrium, but by co-ordinating inputs and outputs be established, the rolling with the uncertainties and fluctuations so characteristic of our economy become possible, and above all the operationalising of resource transfers called for by equity criteria pass into the realm of execution.

The either or myth

My final comment is that in translating such specific policy instruments into programmes, we should avoid what I should call the either—or pitfall. I shall illustrate this in relation to two of our current and pressing problems — unemployment and inflation.

Unemployment

In regard to unemployment, it is not a question of either expressing it in, if I may use once more that overworked phrase, one dimensional magnitudes, or expressing it in disaggregated configurations. Within the last two years, two of our colleagues have made a convincing case to the effect that the Draft Fifth Plan has erred in posing the unemployment issue as if it was either one of expressing it in global aggregates which it refused to do, or nothing at all, which is what it does. There is need for both the aggregated and disaggegated approaches. There is a wide consensus as between the two economists whom I have referred to and the Bhagavati Committee magnitude of our unemployment as ranging between 19 million to 21 million. This is far from being a meaningless figure because it (a) indicates the minimum employment that must be created in relation to the past and is a pointer to the needed aggregate employment policy, and (b) provides a test of the employment generating capacity of the proposed Fifth Plan programmes. The coincidence of these magnitudes with the conclusions of a disaggregated district study undertaken by our host university here is significant. That study shows that 10 per cent of the district's agricultural labourers are unemployed and less than 10 per cent of that 10 per cent group found employment in the 1971-72 crash employment programme. On the other hand, we also need detailed disaggregated information on the unemployed by location, by age, by sex, by skill formation, by family status, by work preference in terms of man hours, wage rates, and location in order that the specific production projects and programmes, plan and non-plan, may meet the employment needs of individuals and groups. It is only on this basis that detailed and workable employment generating or oriented plan schemes can be formulated and operated. In addition to the Comptroller and Auditor General's analysis of nepotism and waste, one reason for the lag in the crash rural works programme is that it has not been preceded in each block or taluk by a quick survey of production potential and the demand for different types of work by different types of unemployed persons, so that in some areas where there is widespread unemployment and underemployment, the families are reported to have expressed themselves as being unable to spare a singlel member for the full time work offered on road building in a somewhat distant location. The empirical study referred to

earlier has in this regard some valuable pointers, such as: employment policy per se for the vast majority living well below the poverty line resulting in wages that fall short of the minimum per capita income by 40 per cent; those who own 0.4 hectares and above not wanting additional employment: 75 per cent of those not self employed wanting wage employment, while only 30 per cent of the self employed are in that category: and so on. In a vast country like ours there is always the temptation to formulate and operate theoretically well conceived country wide programmes which fail because they do not bear the hall mark of specificity which the production or employment programme in each locality demands.

Inflation

The other equally distressing case of the false approach of alternatives, the either or choice, which is posed is in relation to the policy prescription to deal with our inflation. Here it is extremely important and urgent that there be a consensus among economists on the manner of dealing with this malady. I have had it brought to my attention by the highest authority in Government that the Government was unable or unwilling to act on inflation and when it did, proceeded haltingly in an ad hoc manner, because of the varying policy prescriptions that/we have proposed. I do not believe that this is the reason for the non action or part action but the criticism is well founded if we bear in mind how much time and space we have expended in proving that our colleagues' ideas will not work. Our current inflation is not due either to monetary causes or to non-monetary structural causes. It is due to both and action has to be taken on both fronts. On the monetary front, some of us have proposed the classical remedy of a one time 30 per cent reduction in money supply together with a ceiling on future money creation. Given the rate at which money has been pumped into circulation, I cannot believe that anyone of us will disagree with this cry to halt this behaviour of our monetary system, which is like that of a drunken medieval monarch scattering what he considered to be largesse. According to the RBI weekly statistical supplement, as on March 8 of this year, notes in circulation increased by Rs. 1,000/- crores in 12 months. As at March 15, bank credit expansion also crossed the Rs. 1,000/- crores mark during the busy season—September, 1973-March, 1974. But money supply like chickens come home to roost in a cumulative sense. During the last three years of the Fourth Plan, not only has national income risen by a mere 7 per cent, (food grains by 6.4 per cent and industrial production by 9.5 per cent) while money supply expanded by 54 per cent, the rate of monetary expansion has been continuously accelerating—11.8 per cent in 1970-71, 14 per cent in 1971-72, 15.17 per cent in 1972-73 and 17.7 per cent in 1973-74. This must stop. There is also the unorthodox monetary remedy that is being tried in both affluent and developing countries elsewhere and is in part embodied in the index linking part of the economists scheme, and that is to ride with the inflation. This would mean an annual marking up of capital and fixed assets, savings, government securities, rents, mortgages, wages, salaries, dividends, profits, in accordance with the percentage rise in the price index with a 10 to 15 per cent additional mark up for wages in the agricultural and unorganised sector, as a compensation to past and present sub-minimum wages. It would also involve a mini devaluation of our exchange rate every six months to protect our balance of payments position. Whatever monetary measure we adopt, however, has to be part of a package of measures. This seems so obvious that I wonder if I am missing something. There are 2 ways

of absorbing the 50 per cent excess money that has been pumped in to circulation. One is to issue no further additional money and let our annual production growth—at the current 3 per cent per annum or the proposed 5.5 per cent per annum—catch up with increased money supply. This means an 8 to 10 years wait. The other is to withdraw or immobilise that excess from circulation now and let prices fall. Second could we also agree that non-inflationary development calls for not only no reduction in plan investment and particularly the kind of disinvestment forced by galloping public expenditures, but rather a higher level of time bound decentralised investment than what is proposed, in food grains, and its needed inputs and infrastructures including fertilisers, in edible oils, cloth, coal, functional education and rural health services, not by increasing the total plan outlay but by shifting investments from other sectors into these. In this complex of investment deepening and rescheduling, increase of foodgrains production by an annual 3 to 4 per cent has a special, probably first priority on which the total anti inflationary commodity strategy depends. Third could we agree to the urgency of establishing a structure of relative prices and a delivery system and distribution network so that the prices of non-essential goods and services are high, so that savings accrue from the reduced consumption of the affluent minority and not as at present from the reduced living levels of the poor majority. Such a price policy must be accompanied by wage—salary—dividend and profits policy which as referred to earlier must be a disaggregated policy. In the case of profits, with prices outrunning wages the resulting profit inflation calls for freezing an inflation gains diversion. In the case of salaries and dividends there must be a freezing. Wages need to be raised for the unorganised farm labour sector and compensated in the organised sector for its decline in real terms to 99 percent last year and lower still this year at the 1960 base. *(I have read that the Chairman of* the Bonus Review Committee has in a personal note appended to the committee report demonstrated that the average real wages of all workers had risen from 107.3 in 1952 to 124.3 in 1968. As the report has not been released it has not been possible to examine these computations. What is statistically confirmed by the RBI and the National Labour Commission is that for workers earning Rs. 400/- and less there has been a continuing decline and for all workers after 1968 there has been a fall. There may thus not be a conflict between the two estimates). These short term measures are based on a rationale that go beyond the traditional *demand—pull causation supposedly originating* in the final goods market and the cost push elements that are supposed to emanate in the factors market. The immediate action proposed here is based rather on the relative speed of profits versus wages inflation, which is a function not of impersonal market forces but of identifiable market power, and leads on in the long term to how the sources of such power can be controlled and abolished and the economic processes brought back into the main stream of civilized living. But here I digress from the task of indicating a possible consensus on an anti-inflation package among us economists. To return to it, fourth and finally, could we agree on the public sector and the private corporate sector generating a level of savings higher than the 1.4 to 2.4 percent of GNP that has been forecast and the government using its tax and other instruments to promote economy, capacity utilisation, productive savings, innovation a la the Raj Committee Report and really mopping up black money. This kind of package

monetary and non-monetary, to contain or ride with inflation has been suggested by academic economists, the Delhi and Bombay round tables and economists in the private sector. The *four point* programme that I have summarised is a package and must be so integrally conceived and sequentially programmed.

It is my feeling that all the technical advice needed has been elaborated and made available to the government. The country and the government have the manpower to put into effect the suggested programme. What is lacking is the political will to make the necessary and in some cases painful monetary and structural decisions to act. In this sense it is not only the economists but the country which is at the cross roads. Can we help it choose the path of justice, equity and civilised living, and turn away from the road of inflation, speculation, black money, corruption, unemployment and poverty on which we now seem to be marching? I hope that we can and I know that we must.

BOOK-REVIEW

Women's Welfare in Tamil Nadu.

A Study made by K. G. Rama;

Published by Sangam Publishers, Madras, for The Madras Institute of Development Studies, Adayar, Madras, 1974.

With the advent of Indian independence, efforts were on foot to translate the political freedom into economic and social terms in order to give it substance and meaning to our women folk who have been forced for centuries to lead a life of subjugation. A large number of laws have been passed since the fifties of this century to remove the disabilities of women. The constitution also guarantees equality to women before the laws and equal protection of the laws.

In addition a large number of voluntary organizations have taken up the cause of women and stressed the need to introduce them into a fuller, richer and meaningful life in the new pulsating life of India. Further the Central and States governments have also launched welfare services for women and other neglected groups so that they could be involved in the economic and social transformation of our country and thereby help them to achieve a better and purposeful life—a life where the individual is set free in an atmosphere of opportunity, dignity and justice.

Tamil Nadu has been playing a pioneering role in Women's Right Movement and also in launching welfare schemes for women. The founding of the Women's Indian Association, Madras, in 1917 was a land mark in the history of Women's Right Movement in India—Likewise the forming of the Women's Voluntary Services for Civil Defence in 1938 was also a land mark in stressing the need for launching welfare measures for the benefit of women. A voluntary organization known as 'The Women Air Raid Precautionary Corps' was established in 1941 to enrol women for the air raid precautionary services during the Second World War. After the War the Air Raid Precautionary Corps came under the control of Government under the name Indian Women Civil Corps and was aimed at promoting the civic, social, cultural and economic improvement of women. In 1947 the corps' name was changed to Women's Welfare Department. The Rural Welfare Department also launched programmes for women. The State Branch of the Central Social Welfare Board was established in 1954. On June 1, 1961, the three agencies undertaking women's welfare in the State viz. the department of women's welfare, the State social welfare board and the branches working for the welfare of rural women in the Community Development Organization under Rural Development and Local Administration Department—were integrated into a single Directorate of Women's Welfare. In October 1972 the Directorate of Women's Welfare was redesignated as the Department of Social Welfare.

At present the Department of Social Welfare is undertaking seven activities for the benefit of 83 lakhs of women who in accordance with the State Planning Commission's definition and study are living below the State's dietetic poverty line.

The State Planning Commission has established Rs. 27.90 per capita per month in rural and Rs. 34.87 per capita per month in the urban areas as the nutritional poverty line in the State.

This book is the outcome of the research undertaken by the author to find the reactions of those who have been benefited by the welfare schemes undertaken by the Social Welfare Department.

The book opens with the preface written by Dr. Malcolm Adiseshiah, wherein he gives a bird's eye view of the major findings of the study and a lucid presentation of the recommendations arising from the study, for the furtherance of women's welfare in Tamil Nadu. This is followed by five main chapters. The seven assumptions on which this study is made are listed at the outset, followed by the statement of objectives and the research design. The author claims that her sample is fairly representative for the State as a whole, because she had included in her study two developed and industrialised districts and two under-developed and rural districts—Madras city and the District of Coimbatore represent the developed and industrialized areas and Ramanathapuram and Dharmapuri Districts the under-developed and rural areas. The author states clearly that due to limitations of time and resources, she was forced to adopt a purposive random sample method and the total sample also was 800—583 beneficiaries and 217 non-beneficiaries.

The second chapter surveys the general background of the respondents and a comparison between the beneficiaries and non-beneficiaries. It also highlights the fact that the majority of women have plenty of leisure time at their disposal which could be profitably utilized by the Government for the well-being of the individual families as well as for national development.

The third chapter analyses the welfare services that the beneficiaries know about and the services they are making use of and their opinions about these services and their suggestions for improving them. It is gratifying to note that none of the respondents is against any of these programmes. Practically all have shown interest in making use of some of the programmes. But they felt the need to reorient these programmes in such a way that they get employment which will help them to supplement their meagre income.

The fourth chapter deals with the welfare needs of the respondents and the opinions of the welfare workers.

The last chapter entitled 'Welfare Programmes Recommended' presents the conclusions and recommendations for further guidance and planning. The crux of the problem for women lies in the demands of the family. As things are today, a better image of women is inextricably tied to improvement of the economic lot of the family as a whole. The present study revealed the fact that the monthly mean family income of the respondents under study is Rs. 85.20 and the per-capita monthly income is Rs 16.25. This per-capita monthly income is just half of the nutritional poverty line established by the State Planning Commission for the urban areas and the women who participate in the welfare programmes undertaken by the Department of Social Welfare are deeply enmeshed in the poverty sector. Hence the recommendations made in the last chapter is very appropriate and timely. The three point programme of employment, training and education for helping the families belonging to to the lower socio-

economic group to lift their living levels initially to the minimum levels and later to above that level.

The value of this book has been enriched by the presentation of the data with the help of well prepared cross and frequency tables and graphs and diagrams. Except for Table 25 (Page 33) which gives the impression that sterilization is different from Vasectomy and Tubectomy, ail the tables are self explanatory.

To sum up, this book is valuable from several points of view. It presents a mass of information in convenient tables and readable form and discusses the direction in which the State Planning Commission and the State Social Welfare Department should proceed in introducing the womenfolk of our country as worthy partners for improving the lot of their own families and ultimately spearheading national development.

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